

=> fil reg

FILE 'REGISTRY' ENTERED AT 12:52:14 ON 06 FEB 2008

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STRUCTURE FILE UPDATES: 5 FEB 2008 HIGHEST RN 1001672-38-3

DICTIONARY FILE UPDATES: 5 FEB 2008 HIGHEST RN 1001672-38-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

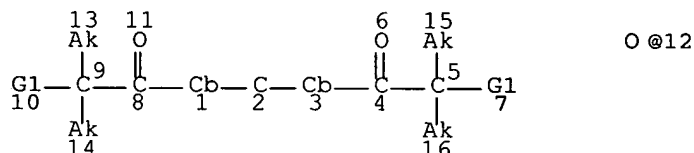
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d sta que l31

L24 STR



VAR G1=X/12

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 2

CONNECT IS M1 RC AT 12

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

GGCAT IS UNS AT 3

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE

L31 25 SEA FILE=REGISTRY CSS FUL L24

100.0% PROCESSED 776248 ITERATIONS

25 ANSWERS

SEARCH TIME: 00.00.07

=> d his

(FILE 'HOME' ENTERED AT 12:33:13 ON 06 FEB 2008)

SET COST OFF

FILE 'HCAPLUS' ENTERED AT 12:33:23 ON 06 FEB 2008

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E SOMMERLADE/AU
L2 11 S E6, E7
E HUSLER/AU
L3 5 S E17
E HUESLER/AU
L4 36 S E17, E18
E HEUSLER/AU
L5 3 S E3
E ILG/AU
L6 28 S E43-E46
E FUCHS/AU
L7 316 S E3-E9, E47
E BOULMAAZ/AU
L8 25 S E4, E5
E SOUAD/AU
E BIRBAUM/AU
L9 50 S E8, E9
E CIBA/CO
E CIBA S/CO
L10 2575 S E19-E144/CO, PA, CS
E E63+ALL
E E1+ALL
L11 2731 S E2+RT OR E2-E22/PA, CS
L12 29974 S CIBA?/CO, PA, CS
L13 1 S L1 AND L2-L12
SEL RN

FILE 'REGISTRY' ENTERED AT 12:38:05 ON 06 FEB 2008

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L16 1 S L15 AND C21H24O5
L17 STR
L18 0 S L17 CSS SAM
L19 0 S L17 SAM
L20 STR
L21 0 S L20
L22 STR L20
L23 0 S L22
L24 STR L22
L25 0 S L24 CSS SAM
L26 12 S L15 AND (C21H24O2 OR C17H18O OR C41H51N3O2 OR C27H39N3O2 OR C
L27 2 S L26 AND C21H21BR3O2
L28 1 S 793686-10-9
L29 14 S L15 NOT L26
L30 15 S L16, L28, L29
L31 25 S L24 CSS FUL
SAV TEMP L31 TREIDL552/A
L32 10 S L31 NOT L30
L33 14 S L30 NOT 474510-57-1

FILE 'HCAPLUS' ENTERED AT 12:51:44 ON 06 FEB 2008

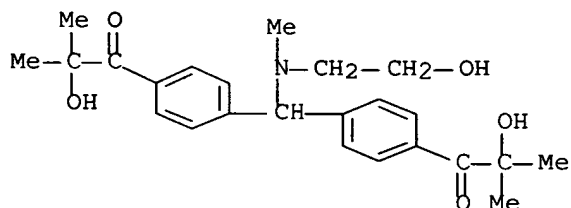
L34 3 S L33
L35 3 S L34 AND L1-L13

FILE 'USPATFULL' ENTERED AT 12:52:02 ON 06 FEB 2008

3 S L33

=> d ide can tot 133

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RN   793686-21-2  REGISTRY
ED   Entered STN:   07 Dec 2004
CN   1-Propanone, 1,1'-[[[(2-hydroxyethyl)methylamino]methylene]di-4,1-
     phenylene]bis[2-hydroxy-2-methyl- (9CI)  (CA INDEX NAME)
MF   C24 H31 N O5
SR   CA
LC   STN Files:    CA, CAPLUS, USPATFULL
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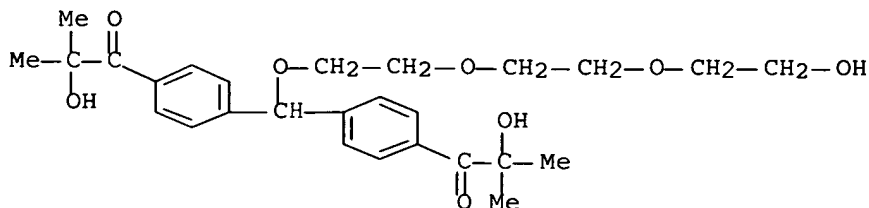


****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

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L33  ANSWER 2 OF 14  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   793686-20-1  REGISTRY
ED   Entered STN:   07 Dec 2004
CN   1-Propanone, 1,1'-[[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]methylene]di-4,1-
     phenylene]bis[2-hydroxy-2-methyl- (9CI)  (CA INDEX NAME)
MF   C27 H36 O8
SR   CA
LC   STN Files:    CA, CAPLUS, USPATFULL
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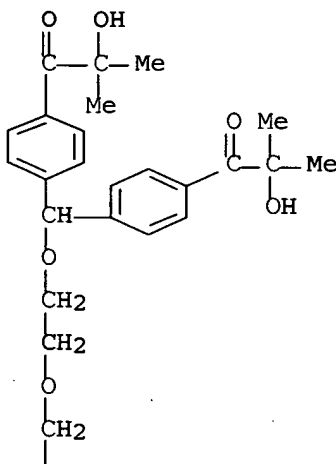
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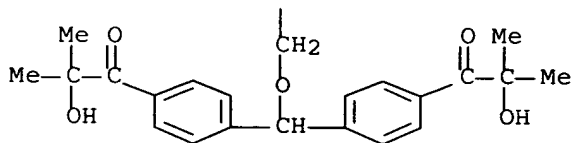
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L33 ANSWER 3 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
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 ED Entered STN: 07 Dec 2004
 CN 1-Propanone, 1,1',1'',1'''-[oxybis(2,1-ethanediyloxymethylidynedi-4,1-phenylene)]tetrakis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
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 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-A



PAGE 2-A



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

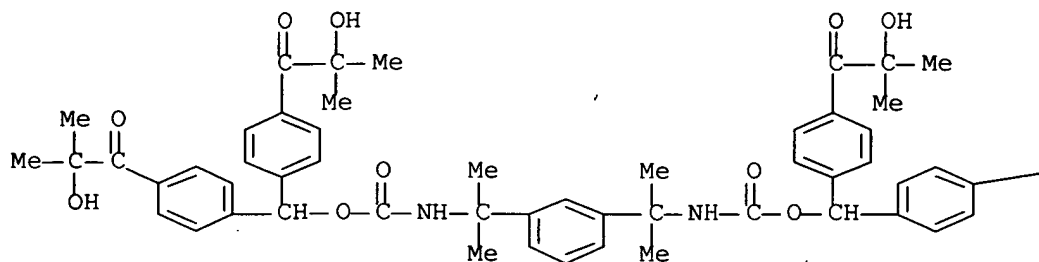
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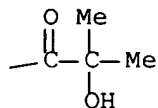
L33 ANSWER 4 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 793686-18-7 REGISTRY
 ED Entered STN: 07 Dec 2004
 CN Carbamic acid, [1,3-phenylenebis(1-methylethylidene)]bis-,
 bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA

INDEX NAME)
 MF C56 H64 N2 O12
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-A



PAGE 1-B



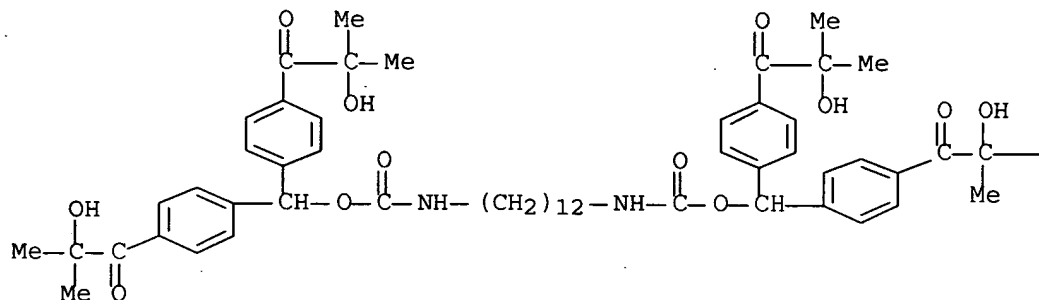
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 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 5 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 793686-17-6 REGISTRY
 ED Entered STN: 07 Dec 2004
 CN Carbamic acid, 1,12-dodecanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)
 MF C56 H72 N2 O12
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

PAGE 1-A



PAGE 1-B

— Me

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 6 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN

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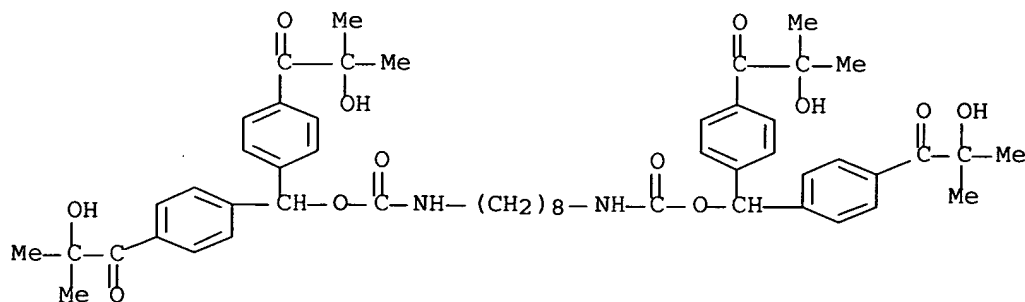
ED Entered STN: 07 Dec 2004

CN Carbamic acid, 1,8-octanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

MF C52 H64 N2 O12

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

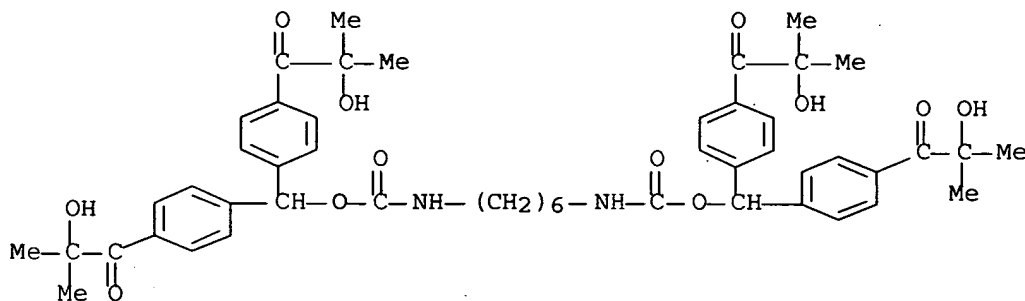


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1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 7 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-15-4 REGISTRY
ED Entered STN: 07 Dec 2004
CN Carbamic acid, 1,6-hexanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)
MF C50 H60 N2 O12
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

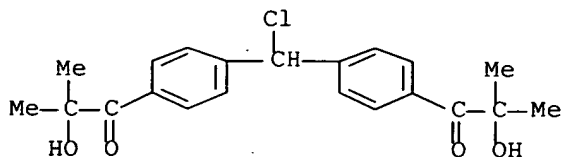


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 8 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-14-3 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(chloromethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane
MF C21 H23 Cl O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

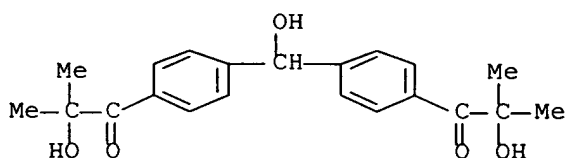


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 9 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-13-2 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(hydroxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol
MF C21 H24 O5
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

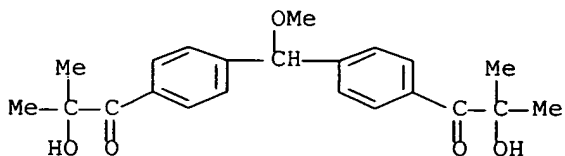


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REFERENCE 1: 141:425384

L33 ANSWER 10 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN
RN 793686-12-1 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(methoxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methoxymethane
MF C22 H26 O5
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 11 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN

RN 793686-11-0 REGISTRY

ED Entered STN: 07 Dec 2004

CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl-
(9CI) (CA INDEX NAME)

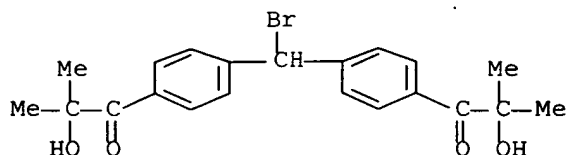
OTHER NAMES:

CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromomethane

MF C21 H23 Br O4

SR CA

LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 12 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN

RN 793686-10-9 REGISTRY

ED Entered STN: 07 Dec 2004

CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-bromo-2-methyl-
(9CI) (CA INDEX NAME)

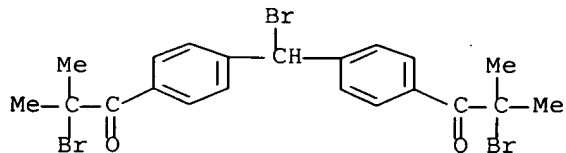
OTHER NAMES:

CN Bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane

MF C21 H21 Br3 O2

SR CA

LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

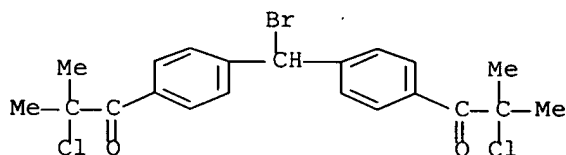
1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 13 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN

RN 793686-09-6 REGISTRY
ED Entered STN: 07 Dec 2004
CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-chloro-2-methyl-
(9CI) (CA INDEX NAME)
OTHER NAMES:
CN Bis[4-(2-chloro-2-methylpropionyl)phenyl]bromomethane
MF C21 H21 Br Cl2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

L33 ANSWER 14 OF 14 REGISTRY COPYRIGHT 2008 ACS on STN

RN 524944-71-6 REGISTRY

ED Entered STN: 04 Jun 2003

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(CA INDEX NAME)

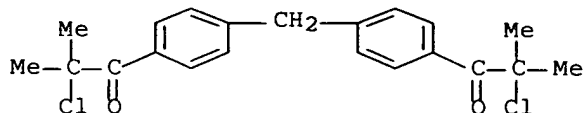
OTHER NAMES:

CN Bis[4-(2-chloro-2-methylpropionyl)phenyl]methane

MF C21 H22 Cl2 O2

SR CA

LC STN Files: CA, CAPLUS, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:425384

REFERENCE 2: 141:381170

REFERENCE 3: 138:386304

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 12:52:30 ON 06 FEB 2008

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FILE COVERS 1907 - 6 Feb 2008 VOL 148 ISS 6

FILE LAST UPDATED: 5 Feb 2008 (20080205/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d l35 bib abs hitstr retable tot

L35 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:996227 HCAPLUS Full-text

DN 141:425384

TI Aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators

IN Sommerlade, Reinhard H.; Huesler, Rinaldo; Ilg, Stephan; Fuchs, Andre; Boulmaaz, Souad; Birbaum, Jean-Luc

PA Ciba Specialty Chemicals Holding Inc., Switz.

SO PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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IN 2005CN03288	A	20070928	IN 2005-CN3288	20051206 <--
PRAI EP 2003-405318	A	20030506	<--	
WO 2004-EP50689	W	20040504		

OS MARPAT 141:425384

AB Ketones with lower volatility than Irgacure 2959, useful for curing of coatings and inks, have 1-10 methylenebis(carbonylphenyl) groups with hydroxy, alkoxy, or amino groups substituted on a tertiary C.alpha to the carbonyl groups and a heteroatom such as O, Cl, Br, N, and S bonded to the methylene group, such as bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methano 1 (I). I was manufactured by Friedel-Crafts reaction of diphenylmethane with isobutyroyl chloride, bromination of the resulting intermediate with Br in CCl₄, and hydrolysis of the resulting bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane in water-dioxane mixture in presence of Bu₄NBr and NaOH.

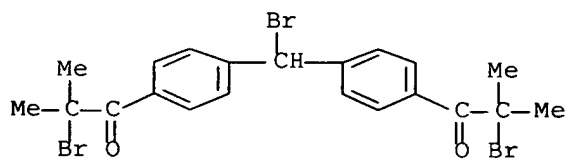
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RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

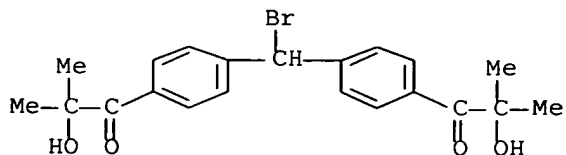
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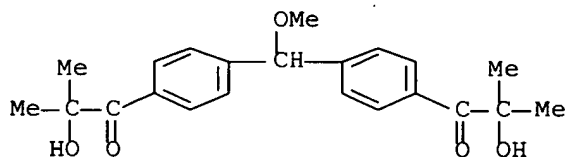
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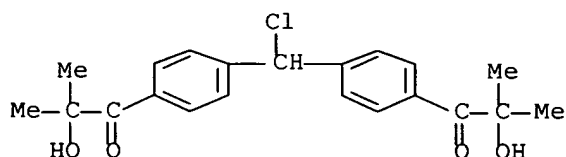
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CN 1-Propanone, 1,1'-[(methoxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



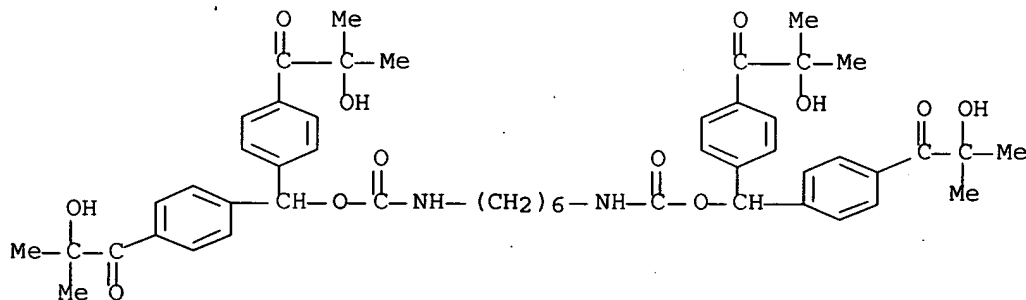
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CN 1-Propanone, 1,1'-[(chloromethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



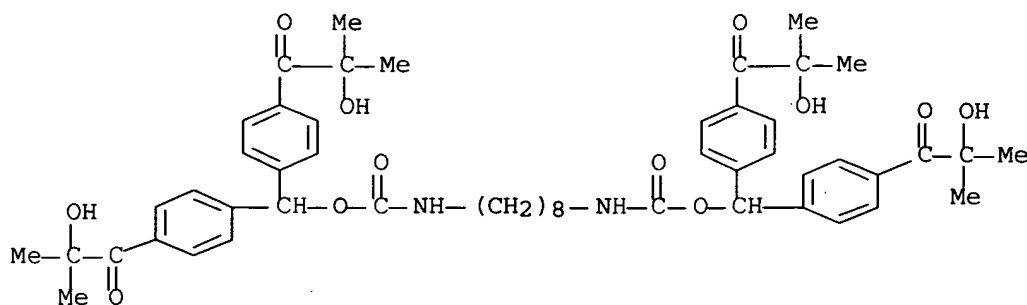
RN 793686-15-4 HCAPLUS

CN Carbamic acid, 1,6-hexanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



RN 793686-16-5 HCAPLUS

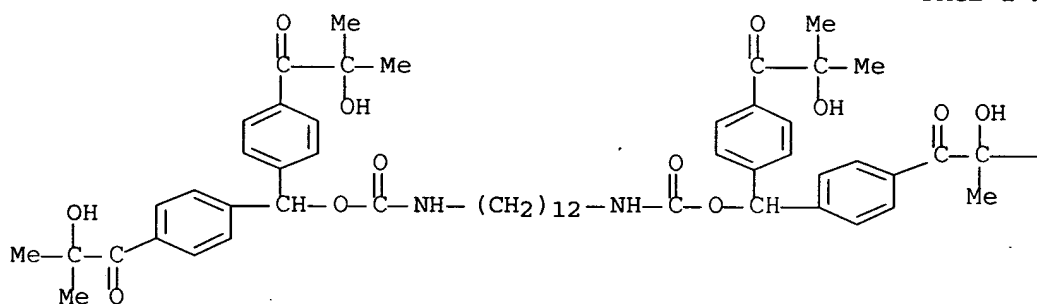
CN Carbamic acid, 1,8-octanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



RN 793686-17-6 HCAPLUS

CN Carbamic acid, 1,12-dodecanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



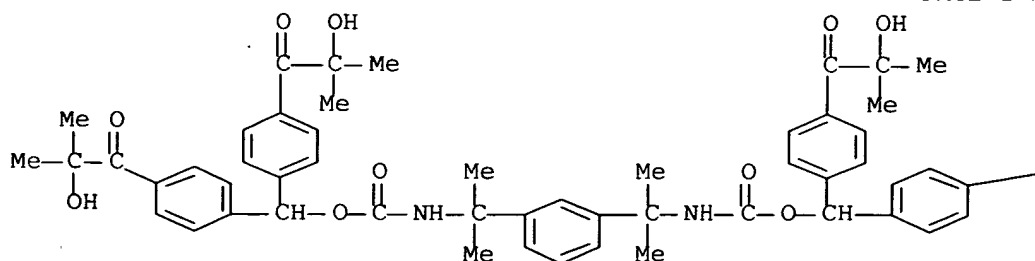
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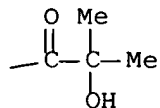
RN 793686-18-7 HCAPLUS

CN Carbamic acid, [1,3-phenylenebis(1-methylethylidene)]bis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



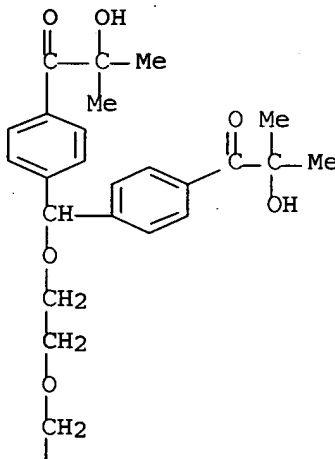
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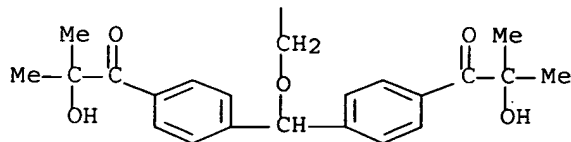
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CN 1-Propanone, 1,1',1'',1'''-[oxybis(2,1-ethanediyloxymethylidynedi-4,1-phenylene)]tetrakis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

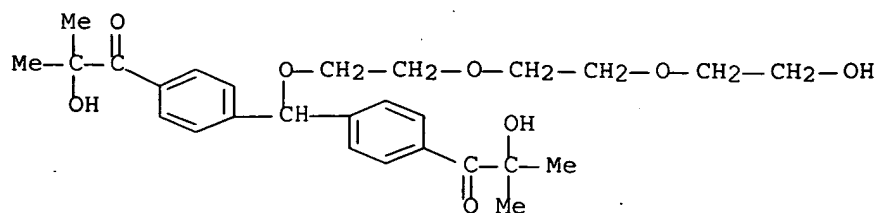


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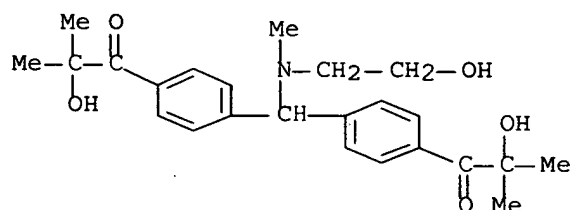
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CN 1-Propanone, 1,1'-[[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



RN 793686-21-2 HCAPLUS

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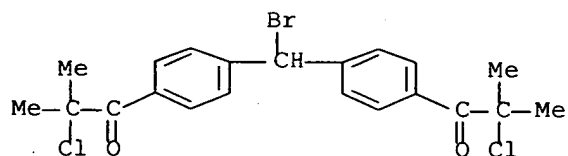


IT 793686-09-6P, Bis[4-(2-chloro-2-methylpropionyl)phenyl]bromomethane
793686-13-2P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol

RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

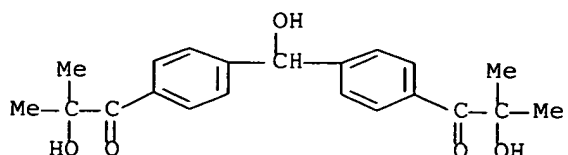
RN 793686-09-6 HCAPLUS

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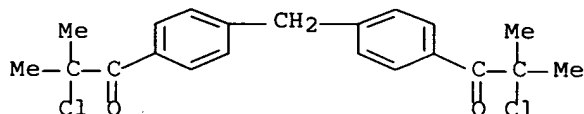


RN 793686-13-2 HCAPLUS

CN 1-Propanone, 1,1'-[(hydroxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



IT 524944-71-6P, Bis[4-(2-chloro-2-methylpropionyl)phenyl]methane
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (precursor; aromatic α -hydroxy ketones, α -alkoxy ketones, and
 α -amino ketones for photoinitiators with low volatility for
 curing of inks and coatings)
 RN 524944-71-6 HCAPLUS
 CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI)
 (CA INDEX NAME)



RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Basf Ag	1997			DE 19700064 A	HCAPLUS
Baudin, G	2002			WO 0248202 A	HCAPLUS
Ciba Geigy Ag	1979			EP 0003002 A	HCAPLUS
Ciba Geigy Ag	1985			EP 0138754 A	HCAPLUS
Merck Patent Gmbh	1981			DE 3008411 A	HCAPLUS
Minnesota Mining & Mfg	1995			WO 9510552 A	HCAPLUS
Sekisui Chem Co Ltd	1992			JP 04011610 A	HCAPLUS

L35 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:905843 HCAPLUS Full-text

DN 141:381170

TI Radiation curable ink-jet ink containing an alpha hydroxy ketone as photoinitiator

IN Fuchs, Andre; Villeneuve, Sebastien; Richert, Michelle

PA Ciba Specialty Chemicals Holding Inc., Switz.

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

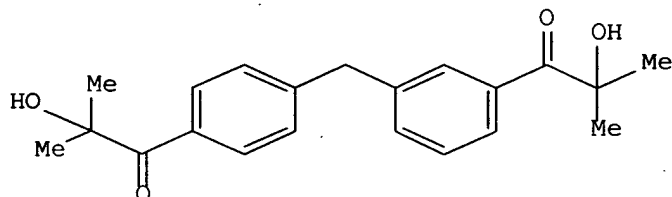
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2519524	A1	20041028	CA 2004-2519524	20040406
EP 1613706	A1	20060111	EP 2004-741450	20040406

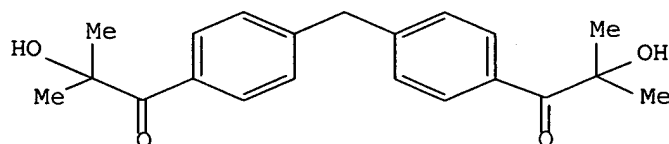
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CN 1771308	A	20060510	CN 2004-80009579	20040406
JP 2006524731	T	20061102	JP 2006-505524	20040406
US 2006209098	A1	20060921	US 2005-553068	20051012
PRAI EP 2003-405266	A	20030416		
EP 2003-102322	A	20030728		
WO 2004-EP50450	W	20040406		

GI



I



II

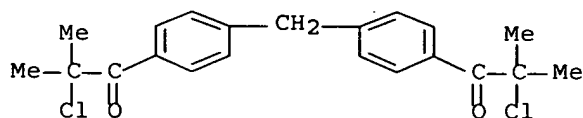
AB A process for preparing an ink-jet printed matter, comprises the steps of applying an UV curable ink-jet ink composition comprising a photopolymerizable monomer, oligomer or prepolymer; a colorant and a compound of the formula I or II or mixts. thereof, and optionally a reactive diluent to a recording medium and curing the ink composition on the recording medium by irradiating with UV ray.

IT 524944-71-6P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(radiation curable ink-jet ink containing an alpha hydroxy ketone as photoinitiator)

RN 524944-71-6 HCAPLUS

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI)
(CA INDEX NAME)



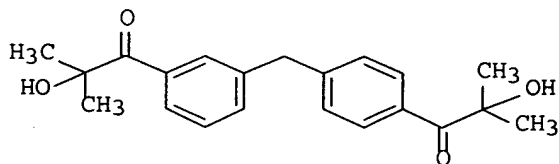
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Felder, L	1981			US 4308400 A	HCAPLUS
Gehlhaus, J	1982			US 4347111 A	HCAPLUS
Huesler, R	2003			WO 03040076 A	HCAPLUS

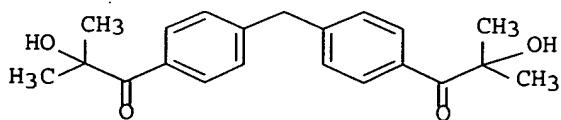
L35 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2003:376800 HCAPLUS Full-text
 DN 138:386304
 TI Difunctional photoinitiators for curing polymers
 IN Fuchs, Andre; Huesler, Rinaldo; Schregenberger,
 Christian; Kunz, Martin
 PA Ciba Specialty Chemicals Holding Inc., Switz.
 SO PCT Int. Appl., 85 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	AU 2002346811	A1	20030519	AU 2002-346811	20021031
	EP 1442005	A2	20040804	EP 2002-783054	20021031
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	CN 1582267	A	20050216	CN 2002-822193	20021031
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	US 2005004249	A1	20050106	US 2004-494593	20040505
	US 7084183	B2	20060801		
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	WO 2002-EP12160	W	20021031		

GI



I



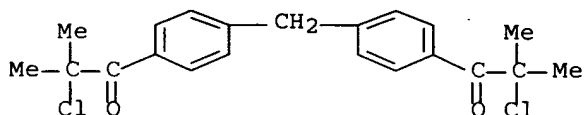
II

AB The invention relates to α -hydroxy ketones of I or II; or their mixts. and their use as photoinitiators. The compds. are prepared by reacting diphenylmethane and isobutyric acid halide in the presence of Friedel-Crafts catalysts, chlorinating and hydrolyzing the resultant mixture, and crystallization. The compds. are useful in curing acrylate monomer-based coatings.

IT 524944-71-6P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (difunctional photoinitiators for curing polymers)

RN 524944-71-6 HCAPLUS

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI)
 (CA INDEX NAME)



=> fil uspatful

FILE 'USPATFULL' ENTERED AT 12:52:51 ON 06 FEB 2008

CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 5 Feb 2008 (20080205/PD)

FILE LAST UPDATED: 5 Feb 2008 (20080205/ED)

HIGHEST GRANTED PATENT NUMBER: US7328458

HIGHEST APPLICATION PUBLICATION NUMBER: US2008028492

CA INDEXING IS CURRENT THROUGH 5 Feb 2008 (20080205/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 5 Feb 2008 (20080205/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2007

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2007

=> d l36 bib abs hitstr tot

L36 ANSWER 1 OF 3 USPATFULL on STN

AN 2006:315965 USPATFULL Full-text

TI Novel trifunctional photoinitiators

IN Sommerlade, Reinhard H, Neuenburg am Rhein, GERMANY, FEDERAL REPUBLIC OF

Husler, Rinaldo, Basel, SWITZERLAND

Ilg, Stephen, Giebenach, SWITZERLAND

Fuchs, Andre, Schliengen-Obereggenen, GERMANY, FEDERAL REPUBLIC OF

Boulmaaz, Souad, Birsfelden, SWITZERLAND

Birbaum, Jean-Luc, Binningen, SWITZERLAND

PI US 2006270748 A1 20061130

AI US 2004-552952 A1 20040504 (10)

WO 2004-EP50689 20040504

20051013 PCT 371 date

PRAI EP 2003-405318 20030506

DT Utility

FS APPLICATION

LREP CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE
 PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005, US

CLMN Number of Claims: 15

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 3753

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The Invention relates to novel ketones of formulae (I) and (II) wherein R.sub.1, R.sub.2, R.sub.3 and R.sub.4 are, for example, C.sub.1-C.sub.8alkyl, R.sub.5 is, for example, hydrogen, A is Cl, Br, -O-R.sub.7, --NR.sub.8R.sub.9 or --S--R.sub.16, A' is --O--, --NH-- or --NR.sub.8--, X and Y are each independently of the other --O--R.sub.10 or --N(R.sub.11)(R.sub.12), n is an integer from 1 to 10, R.sub.6 is, for example, an n-valent radical of linear or branched C.sub.2-C.sub.20alkyl the carbon chain of which may be interrupted by cyclohexanediyl, phenylene, --CH(OH)--, --C(C.sub.2H.sub.5)(CH.sub.2--CH.sub.2--OH)--, --C(CH.sub.3)(CH.sub.2--CH.sub.2--OH)--, --C(CH.sub.2--CH.sub.2--OH).sub.2--, --N(CH.sub.3)--, --N(C.sub.2H.sub.5)--, --N(CH.sub.2--CH.sub.2--OH)--, --CO--O--, --O--CO--, --P(CH.sub.2--CH.sub.2--OH)--, --P(O)(CH.sub.2--CH.sub.2--OH)--, --O--P(O--CH.sub.2--CH.sub.2--OH)--O--, --O--P(O)(O--CH.sub.2--CH.sub.2--OH)--O--, --O--cyclohexanediyl-C(CH.sub.3).sub.2-Cyclohexanediyl-O--, --O--phenylene-C(CH.sub.3).sub.2-phenylene-O--, --O--phenylene-CH.sub.2-phenylene-O--, --Si(CH.sub.3).sub.2--, --O--Si(CH.sub.3).sub.2--O--, --O--Si(CH.sub.3)(O--CH.sub.3)--O--, --Si(CH.sub.3)(R.sub.17)--O--Si(CH.sub.3)(R.sub.18)--, 5-(2-hydroxyethyl)-[1,3,5]triazinane-2,4,6-trione-1,3-diyl and/or by from one to nine oxygen atoms. ##STR1##

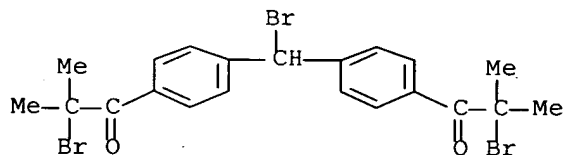
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 e 793686-11-0P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromomethane 793686-12-1P,
 Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methoxymethane
 793686-14-3P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane 793686-15-4P 793686-16-5P 793686-17-6P
 793686-18-7P 793686-19-8P 793686-20-1P
 793686-21-2P

(aromatic α -hydroxy ketones, α -alkoxy ketones, and
 α -amino ketones for photoinitiators with low volatility for
 curing of inks and coatings)

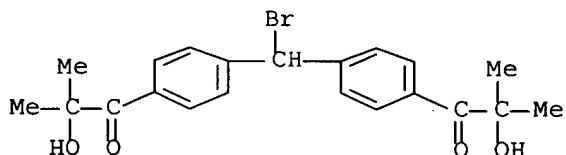
RN 793686-10-9 USPATFULL

CN 1-Propanone, 1,1'-[(bromomethylene)di-4,1-phenylene]bis[2-bromo-2-methyl-
 (9CI) (CA INDEX NAME)



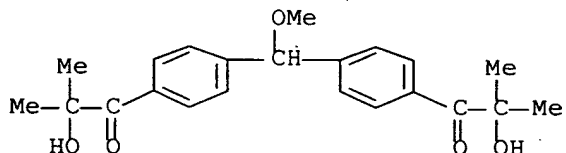
RN 793686-11-0 USPATFULL

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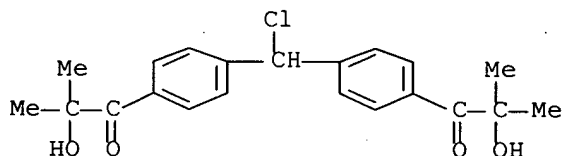
RN 793686-12-1 USPATFULL

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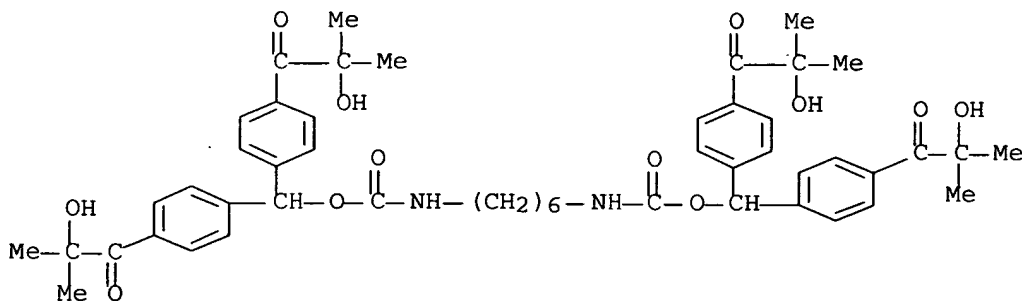
RN 793686-14-3 USPATFULL

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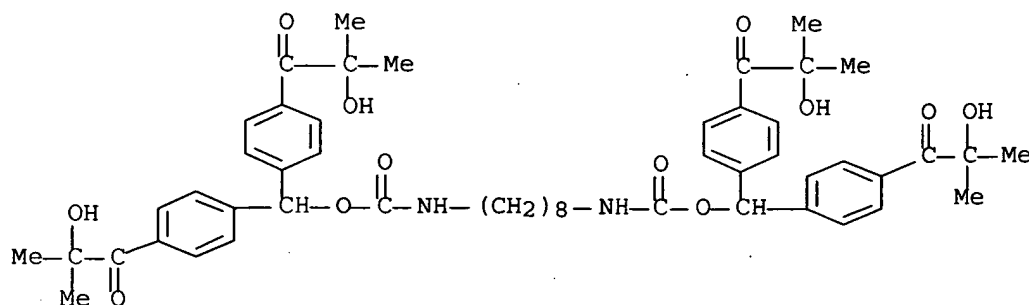
RN 793686-15-4 USPATFULL

CN Carbamic acid, 1,6-hexanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



RN 793686-16-5 USPATFULL

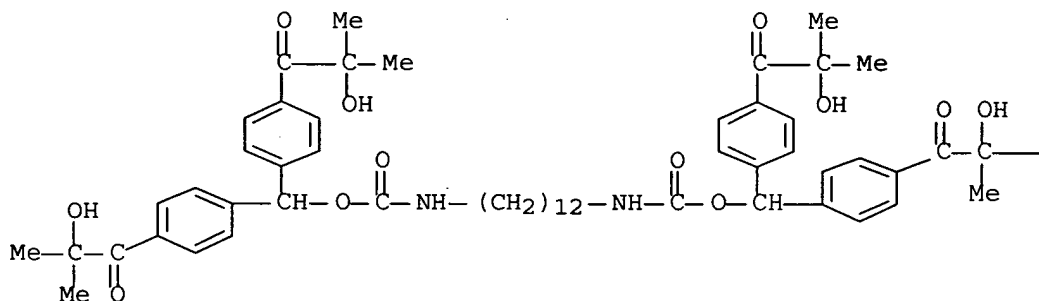
CN Carbamic acid, 1,8-octanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



RN 793686-17-6 USPATFULL

CN Carbamic acid, 1,12-dodecanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



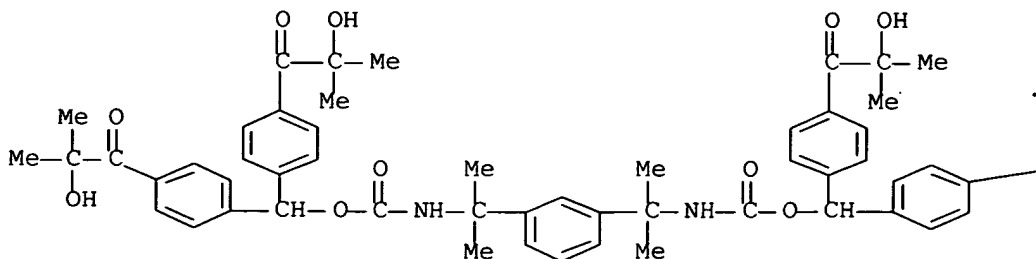
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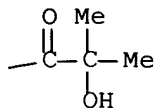
RN 793686-18-7 USPATFULL

CN Carbamic acid, [1,3-phenylenebis(1-methylethylidene)]bis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



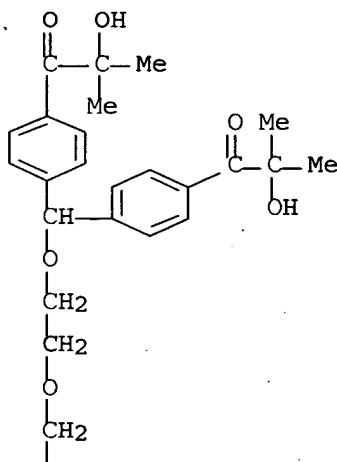
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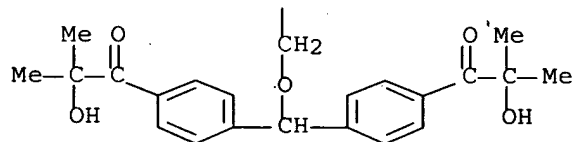
RN 793686-19-8 USPATFULL

CN 1-Propanone, 1,1',1'',1'''-[oxybis(2,1-ethanediyloxymethylidynedi-4,1-phenylene)]tetrakis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

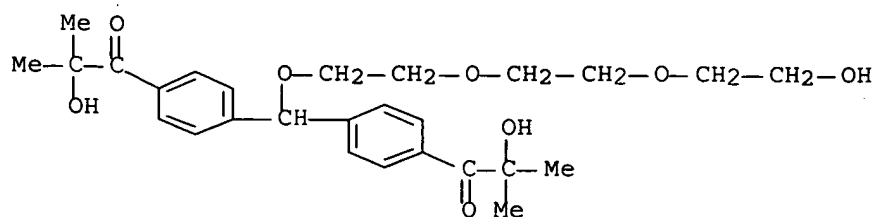


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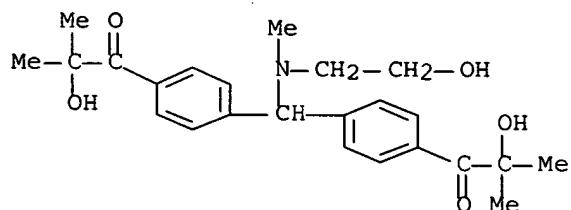
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CN 1-Propanone, 1,1'-[[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



RN 793686-21-2 USPATFULL

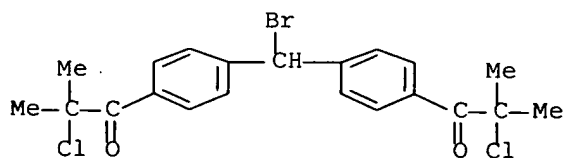
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IT 793686-09-6P, Bis[4-(2-chloro-2-methylpropionyl)phenyl]bromomethane 793686-13-2P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol
(aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

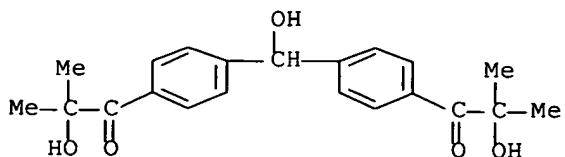
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RN 793686-13-2 USPATFULL

CN 1-Propanone, 1,1'-[(hydroxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

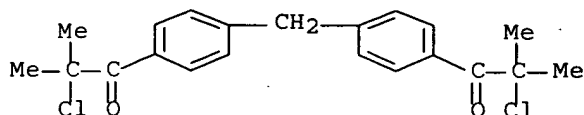


IT 524944-71-6P, Bis[4-(2-chloro-2-methylpropionyl)phenyl]methane

(precursor; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

RN 524944-71-6 USPATFULL

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI)
(CA INDEX NAME)



L36 ANSWER 2 OF 3 USPATFULL on STN

AN 2006:245716 USPATFULL Full-text

TI Radiation curable ink-jet ink containing an alpha hydroxy ketone as photoinitiator

IN Fuchs, Andre, Schlienhgen-Obereggenen, GERMANY, FEDERAL REPUBLIC OF
Villeneuve, Sebastien, Huningue, FRANCE
Richert, Michelle q, Illzach, FRANCE

PI US 2006209098 A1 20060921

AI US 2004-553068 A1 20040406 (10)

WO 2004-EP50450 20040406

20051012 PCT 371 date

PRAI EP 2003-405266 20030416

EP 2003-102322 20030728

DT Utility

FS APPLICATION

LREP CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE
PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005, US

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1212

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing an inkjet printed matter, which comprises the steps of applying an ultraviolet curable inkjet ink composition comprising a photopolymerizable monomer, oligomer or prepolymer; a colorant and a compound of the formula (I) or (II) or (Ia) or (IIa) or mixtures thereof, and optionally a reactive diluent to a recording medium and curing the ink composition on the recording medium by irradiating with ultraviolet ray.
##STR1##

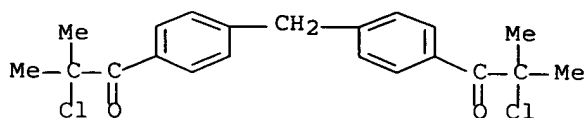
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 524944-71-6P

(radiation curable ink-jet ink containing an alpha hydroxy ketone as photoinitiator)

RN 524944-71-6 USPATFULL

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI)
(CA INDEX NAME)



L36 ANSWER 3 OF 3 USPATFULL on STN

AN 2005:5142 USPATFULL Full-text

TI Novel disfunctional photoinitiators

IN Fuchs, Andre, Schliengen-Obereggenen, GERMANY, FEDERAL REPUBLIC OF
Husler, Rinaldo, Basel, SWITZERLAND

Schregenberger, Christian, Olsberg, SWITZERLAND

Kunz, Martin, Efringen-Kirchen, GERMANY, FEDERAL REPUBLIC OF

PI US 2005004249 A1 20050106

US 7084183 B2 20060801

AI US 2004-494593 A1 20040505 (10)

WO 2002-EP12160 20021031

PRAI EP 2001-811020 20011108

DT Utility

FS APPLICATION

LREP CIBA SPECIALTY CHEMICALS CORPORATION, PATENT DEPARTMENT, 540 WHITE
PLAINS RD, P O BOX 2005, TARRYTOWN, NY, 10591-9005

CLMN Number of Claims: 13

ECL Exemplary Claim: 1

DRWN 14 Drawing Page(s)

LN.CNT 2294

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to α -hydroxy ketones of formula I or IIa; or mixtures
of compounds of formula I and II; or mixtures of compounds of formulae Ia
and IIa ##STR1##

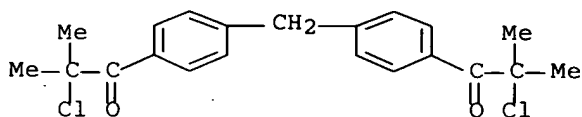
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 524944-71-6P

(difunctional photoinitiators for curing polymers)

RN 524944-71-6 USPATFULL

CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI)
(CA INDEX NAME)



=> fil reg

FILE 'REGISTRY' ENTERED AT 12:53:19 ON 06 FEB 2008

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STRUCTURE FILE UPDATES: 5 FEB 2008 HIGHEST RN 1001672-38-3
DICTIONARY FILE UPDATES: 5 FEB 2008 HIGHEST RN 1001672-38-3

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 29, 2007

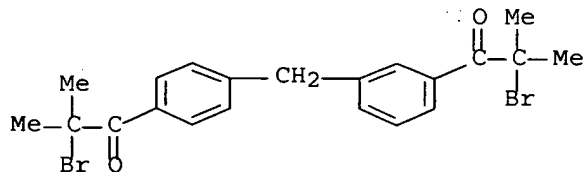
Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> => d ide can tot

L38 ANSWER 1 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 780808-66-4 REGISTRY
ED Entered STN: 15 Nov 2004
CN 1-Propanone, 2-bromo-1-[3-[[4-(2-bromo-2-methyl-1-
oxopropyl)phenyl]methyl]phenyl]-2-methyl- (CA INDEX NAME)
MF C21 H22 Br2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

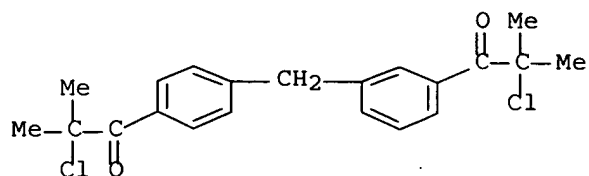


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:381170

L38 ANSWER 2 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 780808-62-0 REGISTRY
ED Entered STN: 15 Nov 2004
CN 1-Propanone, 2-chloro-1-[3-[[4-(2-chloro-2-methyl-1-
oxopropyl)phenyl]methyl]phenyl]-2-methyl- (CA INDEX NAME)
MF C21 H22 Cl2 O2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

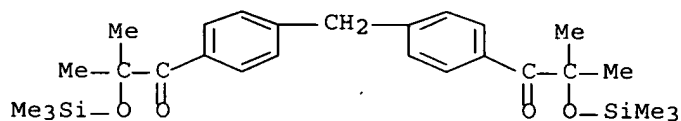


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:381170

L38 ANSWER 3 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-96-0 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-(methylene-di-4,1-phenylene)bis[2-methyl-2-
[(trimethylsilyl)oxy]- (9CI) (CA INDEX NAME)
MF C27 H40 O4 Si2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

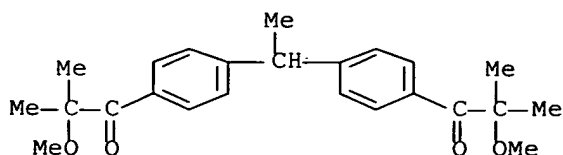


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 4 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-93-7 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-(ethylidenedi-4,1-phenylene)bis[2-methoxy-2-methyl-
(9CI) (CA INDEX NAME)
MF C24 H30 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

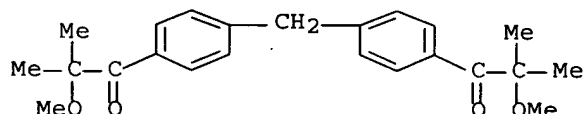


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REFERENCE 1: 140:128829

L38 ANSWER 5 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-92-6 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-(methylenedi-4,1-phenylene)bis[2-methoxy-2-methyl- (9CI)
(CA INDEX NAME)
MF C23 H28 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

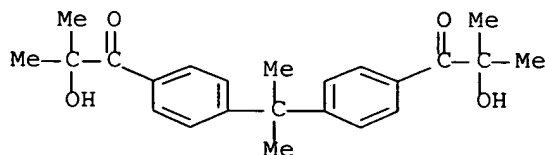


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 6 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
RN 649757-91-5 REGISTRY
ED Entered STN: 14 Feb 2004
CN 1-Propanone, 1,1'-[(1-methylethylidene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)
MF C23 H28 O4
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

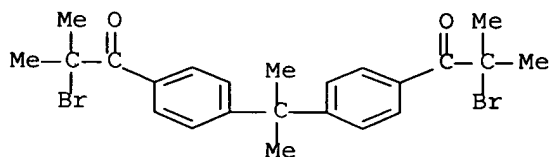


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1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 7 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 649757-90-4 REGISTRY
 ED Entered STN: 14 Feb 2004
 CN 1-Propanone, 1,1'-[(1-methylethylidene)di-4,1-phenylene]bis[2-bromo-2-methyl- (9CI) (CA INDEX NAME)
 MF C23 H26 Br2 O2
 SR CA
 LC STN Files: CA, CAPLUS, USPATFULL

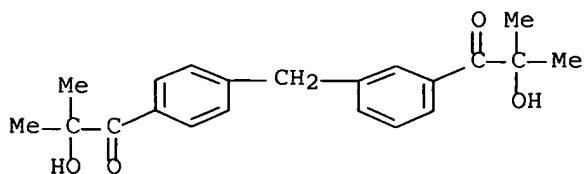


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1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 140:128829

L38 ANSWER 8 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN
 RN 524944-65-8 REGISTRY
 ED Entered STN: 04 Jun 2003
 CN 1-Propanone, 2-hydroxy-1-[3-[[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl]phenyl]-2-methyl- (CA INDEX NAME)
 MF C21 H24 O4
 SR CA
 LC STN Files: CA, CAPLUS, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
 6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 146:231055

REFERENCE 2: 146:229788

REFERENCE 3: 143:348728

REFERENCE 4: 142:482369

REFERENCE 5: 141:381170

REFERENCE 6: 138:386304

L38 ANSWER 9 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN

RN 474510-57-1 REGISTRY

ED Entered STN: 26 Nov 2002

CN 1-Propanone, 1,1'-(methylene-di-4,1-phenylene)bis[2-hydroxy-2-methyl- (CA INDEX NAME)

OTHER NAMES:

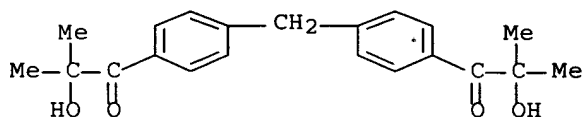
CN Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methane

CN Irgacure 127

MF C21 H24 O4

SR CAS Client Services

LC STN Files: CA, CAPLUS, CHEMLIST, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

28 REFERENCES IN FILE CA (1907 TO DATE)

30 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 148:122003

REFERENCE 2: 148:66208

REFERENCE 3: 147:503914

REFERENCE 4: 147:449957

REFERENCE 5: 147:279426

REFERENCE 6: 147:129168

REFERENCE 7: 147:54224

REFERENCE 8: 147:32894

REFERENCE 9: 147:32893

REFERENCE 10: 147:32884

L38 ANSWER 10 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN

RN 80067-87-4 REGISTRY

ED Entered STN: 16 Nov 1984

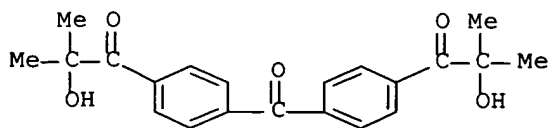
CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 4,4'-Bis(α-hydroxyisobutyryl)benzophenone

MF C21 H22 O5

LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 117:9425

REFERENCE 2: 96:52002

L38 ANSWER 11 OF 11 REGISTRY COPYRIGHT 2008 ACS on STN

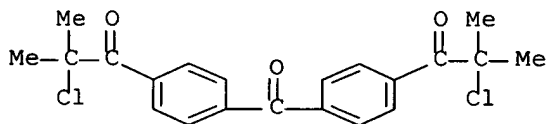
RN 80067-85-2 REGISTRY

ED Entered STN: 16 Nov 1984

CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-chloro-2-methyl- (9CI)
(CA INDEX NAME)

MF C21 H20 Cl2 O3

LC STN Files: CA, CAPLUS, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 96:52002

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(FILE 'HOME' ENTERED AT 12:33:13 ON 06 FEB 2008)
SET COST OFF

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L1 1 S US20060270748/PN OR (US2005-552952# OR EP2003-405318)/AP, PRN
E SOMMERLADE/AU
L2 11 S E6, E7
E HUSLER/AU
L3 5 S E17
E HUESLER/AU
L4 36 S E17, E18
E HEUSLER/AU

L5 3 S E3
 E ILG/AU
 L6 28 S E43-E46
 E FUCHS/AU
 L7 316 S E3-E9, E47
 E BOULMAAZ/AU
 L8 25 S E4, E5
 E SOUAD/AU
 E BIRBAUM/AU
 L9 50 S E8, E9
 E CIBA/CO
 E CIBA S/CO
 L10 2575 S E19-E144/CO, PA, CS
 E E63+ALL
 E E1+ALL
 L11 2731 S E2+RT OR E2-E22/PA, CS
 L12 29974 S CIBA?/CO, PA, CS
 L13 1 S L1 AND L2-L12
 SEL RN

FILE 'REGISTRY' ENTERED AT 12:38:05 ON 06 FEB 2008

L14 42 S E1-E42
 L15 26 S L14 AND 46.150.18/RID AND NR>=2
 L16 1 S L15 AND C21H24O5
 L17 STR
 L18 0 S L17 CSS SAM
 L19 0 S L17 SAM
 L20 STR
 L21 0 S L20
 L22 STR L20
 L23 0 S L22
 L24 STR L22
 L25 0 S L24 CSS SAM
 L26 12 S L15 AND (C21H24O2 OR C17H18O OR C41H51N3O2 OR C27H39N3O2 OR C
 L27 2 S L26 AND C21H21BR3O2
 L28 1 S 793686-10-9
 L29 14 S L15 NOT L26
 L30 15 S L16, L28, L29
 L31 25 S L24 CSS FUL
 SAV TEMP L31 TREIDL552/A
 L32 10 S L31 NOT L30
 L33 14 S L30 NOT 474510-57-1

FILE 'HCAPLUS' ENTERED AT 12:51:44 ON 06 FEB 2008

L34 3 S L33
 L35 3 S L34 AND L1-L13

FILE 'USPATFULL' ENTERED AT 12:52:02 ON 06 FEB 2008

L36 3 S L33

FILE 'REGISTRY' ENTERED AT 12:52:14 ON 06 FEB 2008

FILE 'HCAPLUS' ENTERED AT 12:52:30 ON 06 FEB 2008

FILE 'USPATFULL' ENTERED AT 12:52:51 ON 06 FEB 2008

FILE 'REGISTRY' ENTERED AT 12:53:19 ON 06 FEB 2008

L37 1 S L30 NOT L33
 L38 11 S L32, L37

=>

=> file reg

FILE 'REGISTRY' ENTERED AT 12:15:15 ON 21 FEB 2008

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DICTIONARY FILE UPDATES: 20 FEB 2008 HIGHEST RN 1004854-20-9

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<http://www.cas.org/support/stngen/stndoc/properties.html>

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FILE COVERS 1907 - 21 Feb 2008 VOL 148 ISS 8

FILE LAST UPDATED: 20 Feb 2008 (20080220/ED)

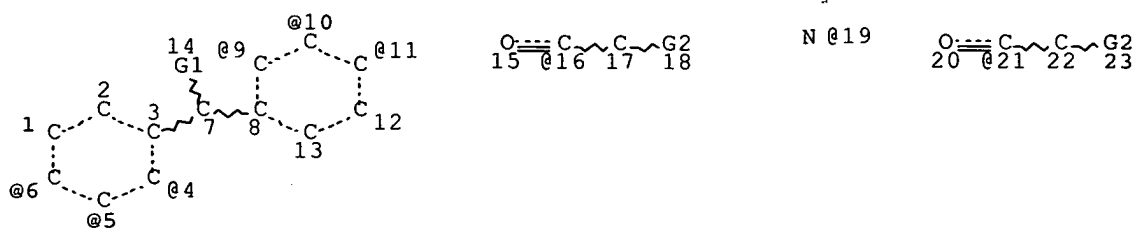
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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d que

L42

STR



VAR G1=CL/BR/O/N/S/CB

VAR G2=O/19

VPA 16-9/10/11 U

VPA 21-4/5/6 U

NODE ATTRIBUTES:

NSPEC IS RC AT 17

NSPEC IS RC AT 19

NSPEC IS RC AT 22

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L44 68 SEA FILE=REGISTRY SSS FUL L42

L46 37 SEA FILE=HCAPLUS ABB=ON L44

L48 2 SEA FILE=HCAPLUS ABB=ON L46 AND PHOTOINIT?

L49 2 SEA FILE=HCAPLUS ABB=ON L46 AND ?INITIAT?

L51 2 SEA FILE=HCAPLUS ABB=ON L48 OR L49

=> d l51 ibib abs ind hitstr 1-2

L51 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:996227 HCAPLUS Full-text

DOCUMENT NUMBER: 141:425384

TITLE: Aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators

INVENTOR(S): Sommerlade, Reinhard H.; Huesler, Rinaldo; Ilg, Stephan; Fuchs, Andre; Boulmaaz, Souad; Birbaum, Jean-Luc

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 128 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004099262	A1	20041118	WO 2004-EP50689	20040504
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

AU 2004236436	A1	20041118	AU 2004-236436	20040504
CA 2522014	A1	20041118	CA 2004-2522014	20040504
EP 1620475	A1	20060201	EP 2004-741507	20040504
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
BR 2004010118	A	20060523	BR 2004-10118	20040504
CN 1784429	A	20060607	CN 2004-80011984	20040504
JP 2006525399	T	20061109	JP 2006-505585	20040504
US 2006270748	A1	20061130	US 2005-552952	20051013
MX 2005PA11543	A	20051214	MX 2005-PA11543	20051027
IN 2005CN03288	A	20070928	IN 2005-CN3288	20051206
PRIORITY APPLN. INFO.:			EP 2003-405318	A 20030506
			WO 2004-EP50689	W 20040504

OTHER SOURCE(S): MARPAT 141:425384

AB Ketones with lower volatility than Irgacure 2959, useful for curing of coatings and inks, have 1-10 methylenebis(carbonylphenyl) groups with hydroxy, alkoxy, or amino groups substituted on a tertiary C alpha to the carbonyl groups and a heteroatom such as O, Cl, Br, N, and S bonded to the methylene group, such as bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methano 1 (I). I was manufactured by Friedel-Crafts reaction of diphenylmethane with isobutyroyl chloride, bromination of the resulting intermediate with Br in CCl₄, and hydrolysis of the resulting bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane in water-dioxane mixture in presence of Bu₄NBr and NaOH.

IC ICM C08F002-50

ICS C07C049-83

CC 42-3 (Coatings, Inks, and Related Products)

Section cross-reference(s): 25

ST arom alpha hydroxy ketone **photoinitiator** coating ink;
bishydroxymethyl propionylphenylmethanol **photoinitiator** coating
ink; amino ketone arom alpha **photoinitiator** coating ink; alkoxy
ketone arom alpha **photoinitiator** coating ink

IT Coating materials

(abrasion-resistant; aromatic -hydroxy ketones, -alkoxy ketones, and
-amino ketones for **photoinitiators** with low volatility for
curing of inks and coatings)

IT Polysiloxanes, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material
use); USES (Uses)

(acrylates, Ebecryl 1360, coating crosslinker; aromatic α -hydroxy
ketones, α -alkoxy ketones, and α -amino ketones for
photoinitiators with low volatility for curing of inks and
coatings)

IT Epoxy resins, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM
(Technical or engineered material use); PREP (Preparation); USES (Uses)

(acrylic, UV-cured ink and coating binder; aromatic α -hydroxy
ketones, α -alkoxy ketones, and α -amino ketones for
photoinitiators with low volatility for curing of inks and
coatings)

IT Ketones, uses

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);

USES (Uses)

(amino; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Laminated plastics, miscellaneous
Reinforced plastics

RL: MSC (Miscellaneous)

(aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of plastic composites)

IT Ketones, uses

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);

USES (Uses)

(aromatic, α -alkoxy; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Acrylic polymers, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (epoxy, UV-cured ink and coating binder; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Coating materials

(gel coats; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Inks

(jet-printing; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Amines, uses

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);

USES (Uses)

(keto; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Crosslinking catalysts

(photochem.; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Coating materials

Inks

(photocurable; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Coating materials

(powder; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Food packaging materials

(substrates; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Glass fibers, miscellaneous

RL: MSC (Miscellaneous)

(substrates; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT Ketones, uses

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);

USES (Uses)

(α -hydroxy; aromatic -hydroxy ketones, -alkoxy ketones, and -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 51728-26-8, Ethoxylated pentaerythritol tetraacrylate
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(Ebecryl 40, coating crosslinker; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 97949-13-8, Ebecryl 605
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(Ebecryl 605, coating binder; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 52408-84-1, OTA 480
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(OTA 480, coating crosslinker; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 649757-97-1P, Ebecryl 220-Ebecryl 645-1,6-hexanediol diacrylate-IRR 440-OTA 480 copolymer 794567-25-2P, Viajet 100-Viajet 400 copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(UV-cured ink binder; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 793686-10-9P, Bis[4-(2-bromo-2-methylpropionyl)phenyl]bromomethane
793686-11-0P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromomethane
793686-12-1P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methoxymethane 793686-14-3P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane
793686-15-4P 793686-16-5P 793686-17-6P
793686-18-7P 793686-19-8P 793686-20-1P
793686-21-2P 793686-22-3P 793686-25-6P,
2-Bromo-1-[4-[bromo-[4-(2-bromobutyryl)phenyl]methyl]phenyl]butan-1-one
793686-27-8P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 793686-09-6P, Bis[4-(2-chloro-2-methylpropionyl)phenyl]bromomethane
793686-13-2P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol
793686-26-7P, 2-Dimethylamino-1-[4-[(dimethylamino)[4-(2-dimethylaminobutyryl)phenyl]methyl]phenyl]butan-1-one
RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for **photoinitiators** with low volatility for curing of inks and coatings)

IT 793686-23-4P, 1-[4-(4-Cyclohexanecarbonylbenzyl)phenyl]-2-methylpropan-1-one

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

IT 135991-03-6, Ebecryl 7100

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(coating binder; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

IT 42978-66-5, Tripropylene glycol diacrylate

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(coating crosslinker; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

IT 20176-49-2P, 1-[4-(4-Butyrylbenzyl)phenyl]butan-1-one 80067-83-0P,

Bis[4-(2-methylpropionyl)phenyl]methane 524944-71-6P,

Bis[4-(2-chloro-2-methylpropionyl)phenyl]methane 793686-24-5P,

2-Bromo-1-[4-[bromo-[4-(1-bromocyclohexanecarbonyl)phenyl]methyl]phenyl]-2-methylpropan-1-one

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(precursor; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

IT 79-30-1, Isobutyryl chloride 100-39-0, Benzyl bromide 101-81-5, Diphenylmethane 109-83-1, 2-Methylaminoethanol 111-46-6, Diethylene glycol, reactions 112-27-6, Triethylene glycol 141-75-3, Butyryl chloride 822-06-0, 1,6-Hexamethylene diisocyanate 2778-42-9, 1,3-Bis(1-isocyanato-1-methylethyl)benzene 10124-86-4, 1,8-Diisocyanatooctane 13879-35-1, 1,12-Diisocyanatododecane 80067-81-8, 1-(4-Benzylphenyl)-2-methylpropan-1-one 474510-57-1, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methane

RL: RCT (Reactant); RACT (Reactant or reagent)

(precursor; aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

IT 793686-11-0P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]bromomethane

793686-12-1P, Bis[4-(2-hydroxy-2-

methylpropionyl)phenyl]methoxymethane 793686-14-3P,

Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]chloromethane 793686-15-4

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793686-19-8P 793686-20-1P 793686-21-2P

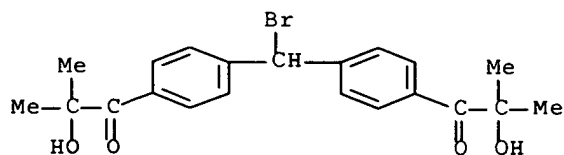
793686-22-3P 793686-27-8P

RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

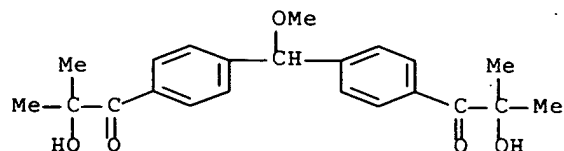
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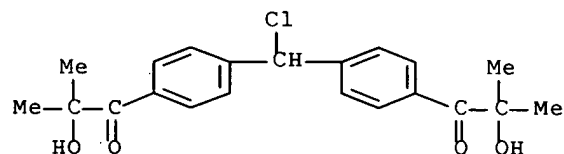
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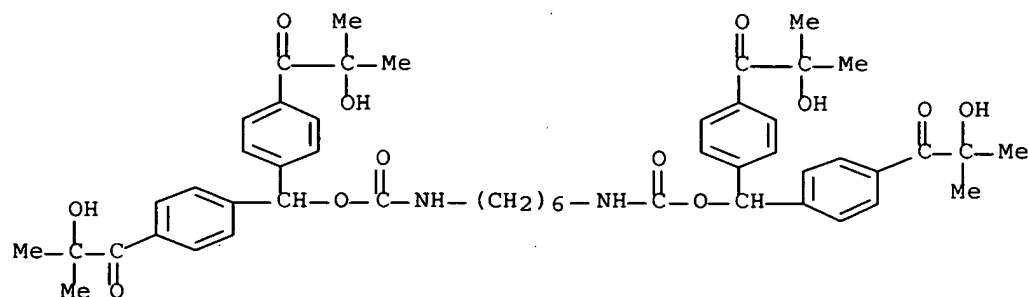
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CN 1-Propanone, 1,1'-[(chloromethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)]



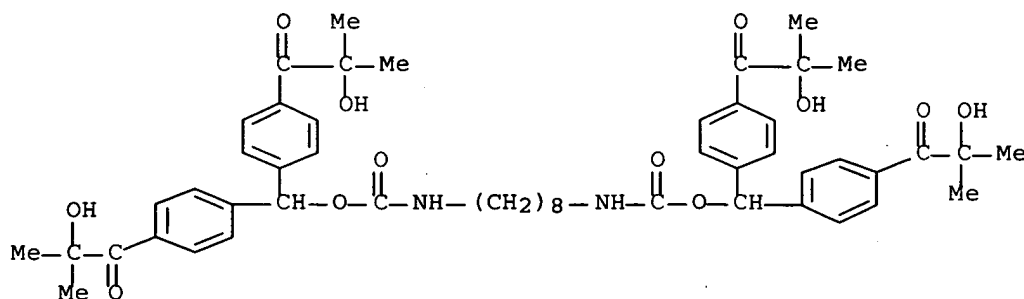
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CN Carbamic acid, 1,6-hexanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



RN 793686-16-5 HCAPLUS

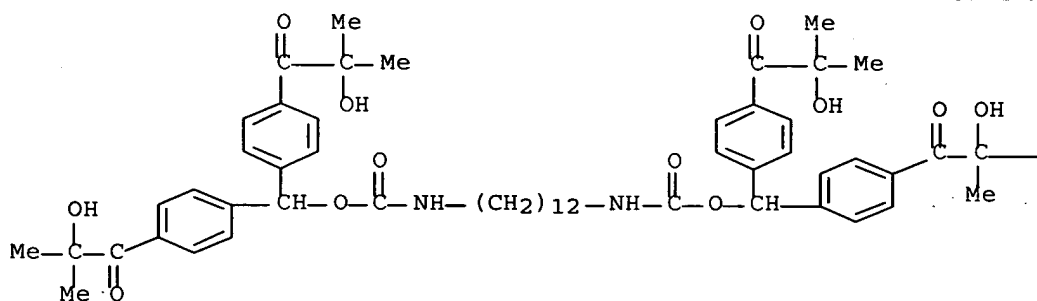
CN Carbamic acid, 1,8-octanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)



RN 793686-17-6 HCAPLUS

CN Carbamic acid, 1,12-dodecanediylbis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



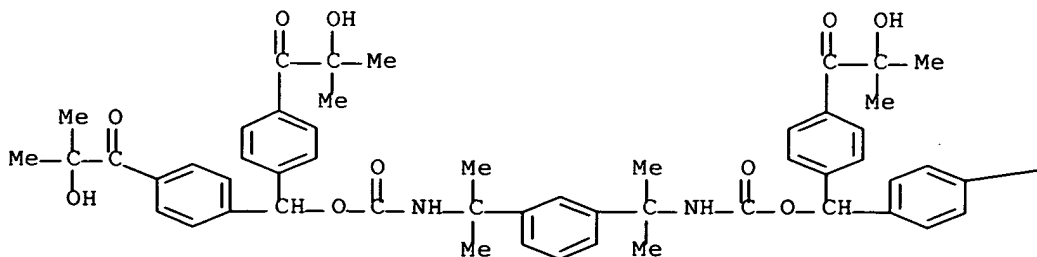
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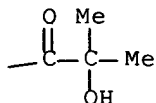
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CN Carbamic acid, [1,3-phenylenebis(1-methylethylidene)]bis-, bis[bis[4-(2-hydroxy-2-methyl-1-oxopropyl)phenyl]methyl] ester (9CI) (CA INDEX NAME)

PAGE 1-A



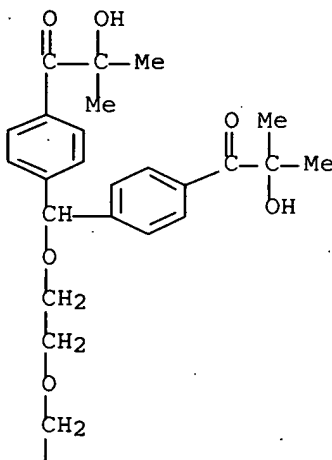
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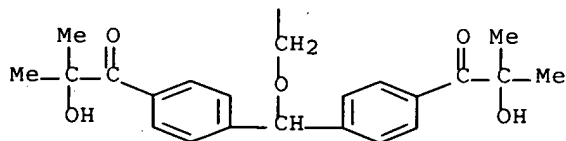
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CN 1-Propanone, 1,1',1'',1'''-[oxybis(2,1-ethanediyloxymethylidynedi-4,1-phenylene)]tetrakis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

PAGE 1-A

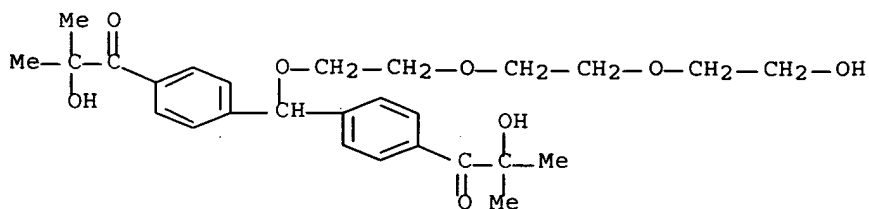


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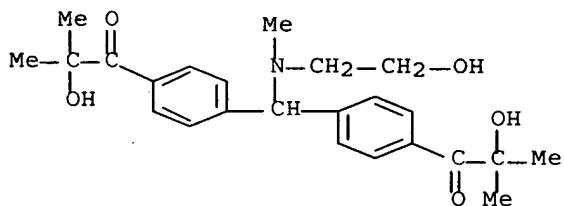
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CN 1-Propanone, 1,1'-[[[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



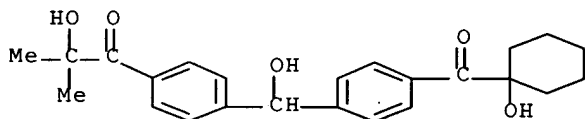
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CN 1-Propanone, 1,1'-[[[(2-hydroxyethyl)methylamino]methylene]di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



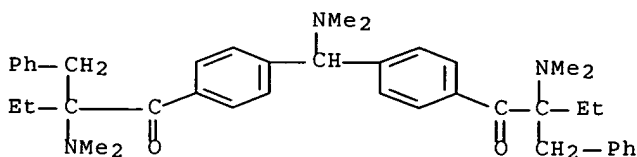
RN 793686-22-3 HCAPLUS

CN 1-Propanone, 2-hydroxy-1-[4-[hydroxy[4-[(1-hydroxycyclohexyl)carbonyl]phenyl]methyl]phenyl]-2-methyl- (CA INDEX NAME)



RN 793686-27-8 HCAPLUS

CN 1-Butanone, 1,1'-[[[(dimethylamino)methylene]di-4,1-phenylene]bis[2-(dimethylamino)-2-(phenylmethyl)- (9CI) (CA INDEX NAME)



IT 793686-13-2P, Bis[4-(2-hydroxy-2-methylpropionyl)phenyl]methanol

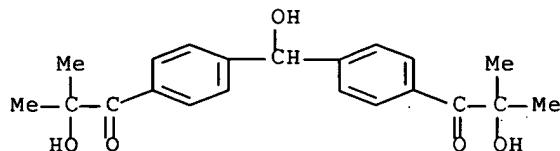
793686-26-7P, 2-Dimethylamino-1-[4-[(dimethylamino)[4-(2-dimethylaminobutyryl)phenyl]methyl]phenyl]butan-1-one

RL: CAT (Catalyst use); IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(aromatic α -hydroxy ketones, α -alkoxy ketones, and α -amino ketones for photoinitiators with low volatility for curing of inks and coatings)

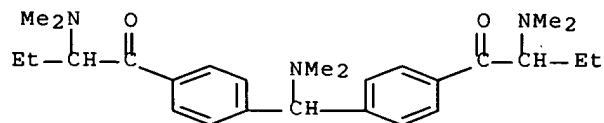
RN 793686-13-2 HCAPLUS

CN 1-Propanone, 1,1'-[(hydroxymethylene)di-4,1-phenylene]bis[2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)]



RN 793686-26-7 HCAPLUS

CN 1-Butanone, 1,1'-[[(dimethylamino)methylene]di-4,1-phenylene]bis[2-(dimethylamino)- (9CI) (CA INDEX NAME)]



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L51 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1982:52002 HCAPLUS Full-text

DOCUMENT NUMBER: 96:52002

ORIGINAL REFERENCE NO.: 96:8557a,8560a

TITLE: Aromatic-aliphatic ketones, their use as photoinitiators and photopolymerizable systems containing these ketones

INVENTOR(S): Eichler, Juergen; Herz, Claus; Neisius, Karl Heinz; Wehner, Gregor

PATENT ASSIGNEE(S): Merck Patent G.m.b.H. , Fed. Rep. Ger.

SOURCE: Ger. Offen., 69 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

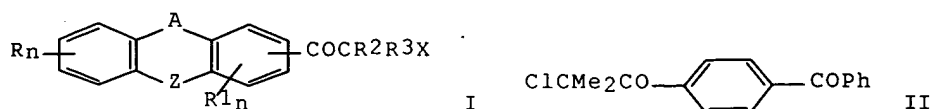
FAMILY ACC. NUM. COUNT: 1

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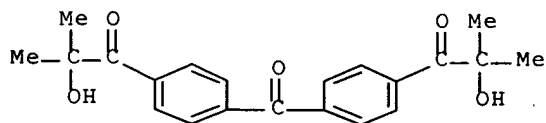
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US 4374984	A	19830222	US 1981-240439	19810304
CH 648016	A5	19850228	CH 1981-1448	19810304
JP 56139478	A	19811030	JP 1981-30632	19810305
US 4496447	A	19850129	US 1982-451673	19821221
PRIORITY APPLN. INFO.:			DE 1980-3008411	A 19800305
			US 1981-240439	A3 19810304

OTHER SOURCE(S): MARPAT 96:52002

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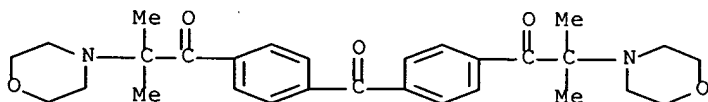


- AB A very wide range of araliph. and condensed araliph. ketones of overall structure I [A = CO or COCO, Z = (H, H), bond, CH₂, etc. X = alkoxy, amino, etc.] was prepared and/or claimed. Thus, PhCH₂Ph was acylated with Me₂CHCOCl, chlorinated, and oxidized with Na₂Cr₂O₇ to give 4-ClCMe₂COC₆H₄Ph, which was, e.g., hydrolyzed with aqueous NaOH to give II. The compds. were tested as polymerization initiators.
- IC C07C069-67; C07D335-16; C07F007-18; C08F002-50
- CC 25-15 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
- ST ketone araliph condensed araliph; thioxanthone alkanoyl; anthraquinone alkanoyl; fluorenone alkanoyl; polymn. initiator ketone
- IT Ketones, preparation
RL: PREP (Preparation)
(araliph., araliph. and condensed)
- IT Polymerization catalysts
(initiators, araliph. and condensed araliph. ketones as)
- IT 101-81-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of)
- IT 79-30-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of diphenylmethane with)
- IT 32476-02-1
RL: PROC (Process)
(partial acetalization of)
- IT 80067-81-8P 80067-84-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and chlorination of)
- IT 782-92-3P 80067-82-9P 80067-83-0P 80067-85-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
- IT 53689-84-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and partial acetalization of)
- IT 80067-85-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and substitution reactions of)
- IT 80067-86-3P 80067-87-4P 80067-88-5P 80067-89-6P
80067-90-9P 80067-91-0P 80067-92-1P 80067-93-2P
80067-94-3P 80067-95-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
- IT 80067-87-4P 80067-91-0P 80067-94-3P
80067-95-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
- RN 80067-87-4 HCAPLUS
- CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-hydroxy-2-methyl- (9CI)
(CA INDEX NAME)



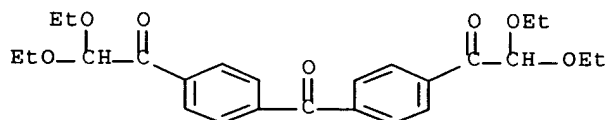
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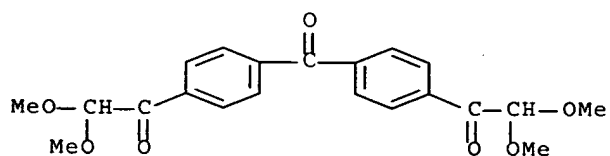
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CN Ethanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2,2-diethoxy- (9CI) (CA INDEX NAME)



RN 80067-95-4 HCAPLUS

CN Ethanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2,2-dimethoxy- (9CI) (CA INDEX NAME)



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FILE 'REGISTRY' ENTERED AT 13:36:24 ON 21 FEB 2008
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DICTIONARY FILE UPDATES: 20 FEB 2008 HIGHEST RN 1004854-20-9

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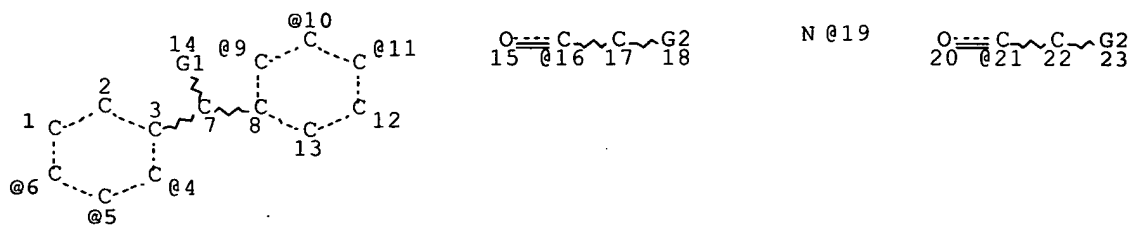
FILE COVERS 1907 - 21 Feb 2008 VOL 148 ISS 8
FILE LAST UPDATED: 20 Feb 2008 (20080220/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d que 162

L42 STR



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VPA 21-4/5/6 U
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DEFAULT ECLEVEL IS LIMITED

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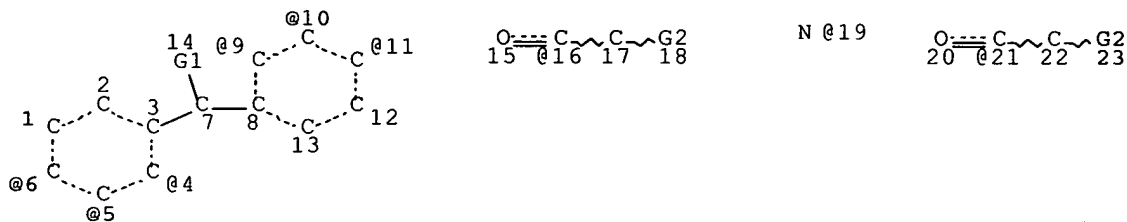
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NUMBER OF NODES IS  23

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STEREO ATTRIBUTES: NONE
L59      15 SEA FILE=REGISTRY SUB=L44 SSS FUL L56

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L60 2 SEA FILE=HCAPLUS ABB=ON L59
L62 1 SEA FILE=HCAPLUS ABB=ON L60 NOT L51

=> d l62 ibib abs ind hitstr

L62 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:101527 HCAPLUS Full-text

DOCUMENT NUMBER: 130:293477

TITLE: Spectrophotometric method for determination of sulfoxides

AUTHOR(S): Kosyan, A. M.

CORPORATE SOURCE: Taras Shevchenko Kyiv University, Kiev, Ukraine

SOURCE: Ukrainskii Biokhimicheskii Zhurnal (1998), 70(1), 125-130

CODEN: UBZHD4; ISSN: 0201-8470

PUBLISHER: Institut Biokhimii im. A. V. Palladina NAN Ukrainy

DOCUMENT TYPE: Journal

LANGUAGE: Ukrainian

AB Easy and exact method for determination of sulfoxides based on the property of these substances to react with the product of tryptophan condensation with p-dimethylaminobenzaldehyde is proposed. An oxidizer-deoxidizer reaction results in formation of bis-2-tryptophanyl-4-dimethylaminophenylcarbinol - a blue-violet dye with absorption maximum at 575 nm. Sensitivity of the method is 5 µmol/g, relative error at three detns. is ± 3.3%. The method can be used for studying features of sulfoxide biosynthesis and accumulation in garlic tissues and for estimation of quality of bulbs as raw material for the food and pharmaceutical industries.

CC 9-5 (Biochemical Methods)

Section cross-reference(s): 17, 64

ST sulfoxide spectrophotometry drug garlic

IT Garlic (*Allium sativum*)

Pharmaceutical analysis

Spectrophotometry

(spectrophotometric method for determination of sulfoxides)

IT Sulfoxides

RL: ANT (Analyte); BOC (Biological occurrence); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)

(spectrophotometric method for determination of sulfoxides)

IT 73-22-3, Tryptophan, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)

(condensation with p-dimethylaminobenzaldehyde; Spectrophotometric method for determination of sulfoxides)

IT 100-10-7, p-Dimethylaminobenzaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(condensation with tryptophan; spectrophotometric method for determination

of

sulfoxides)

IT 62697-73-8P, Methionine sulfoxide

RL: ANT (Analyte); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation)

(spectrophotometric method for determination of sulfoxides)

IT 223261-43-6P

RL: ARG (Analytical reagent use); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation); USES (Uses)

(spectrophotometric method for determination of sulfoxides)

IT 223261-43-6P

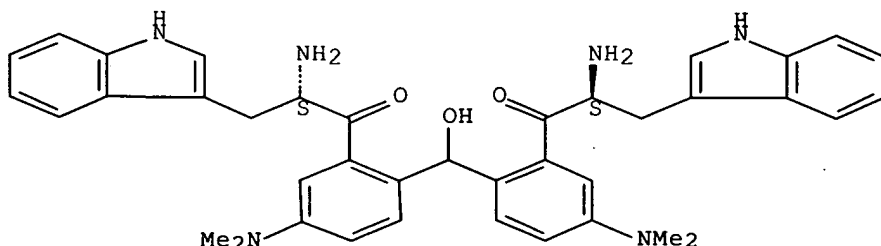
RL: ARG (Analytical reagent use); PNU (Preparation, unclassified); ANST (Analytical study); PREP (Preparation); USES (Uses)

(spectrophotometric method for determination of sulfoxides)

RN 223261-43-6 HCAPLUS

CN 1-Propanone, 1,1'-[(hydroxymethylene)bis[5-(dimethylamino)-2,1-phenylene]]bis[2-amino-3-(1H-indol-3-yl)-, (2S,2'S)- (9CI) (CA INDEX NAME)

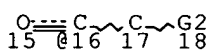
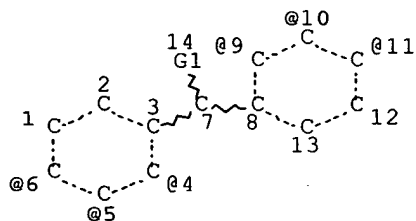
Absolute stereochemistry.



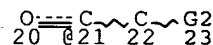
=> d que 163

L42

STR



N @19



VAR G1=CL/BR/O/N/S/CB

VAR G2=O/19

VPA 16-9/10/11 U

VPA 21-4/5/6 U

NODE ATTRIBUTES:

NSPEC IS RC AT 17

NSPEC IS RC AT 19

NSPEC IS RC AT 22

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L44 68 SEA FILE=REGISTRY SSS FUL L42

L46 37 SEA FILE=HCAPLUS ABB=ON L44

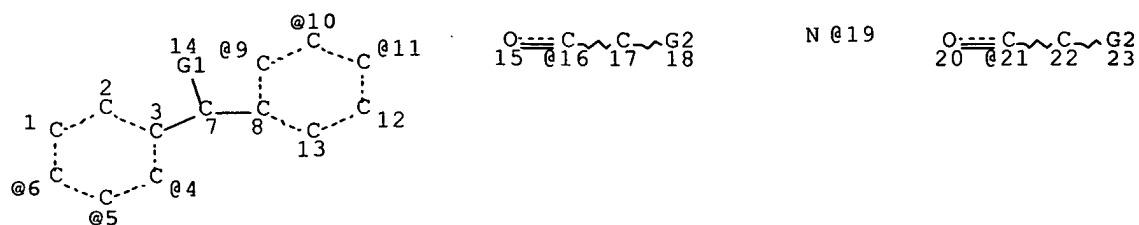
L48 2 SEA FILE=HCAPLUS ABB=ON L46 AND PHOTOINIT?

L49 2 SEA FILE=HCAPLUS ABB=ON L46 AND ?INITIAT?

L51 2 SEA FILE=HCAPLUS ABB=ON L48 OR L49

L55 35 SEA FILE=HCAPLUS ABB=ON L46 NOT L51

L56 STR



VAR G1=CL/BR/O/N/S/CB

VAR G2=O/19

VPA 16-9/10/11 U

VPA 21-4/5/6 U

NODE ATTRIBUTES:

NSPEC IS RC AT 17

NSPEC IS RC AT 19

NSPEC IS RC AT 22

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE

L59 15 SEA FILE=REGISTRY SUB=L44 SSS FUL L56

L60 2 SEA FILE=HCAPLUS ABB=ON L59

L62 1 SEA FILE=HCAPLUS ABB=ON L60 NOT L51

L63 34 SEA FILE=HCAPLUS ABB=ON L55 NOT L62

=> d l63 ibib abs ind hitstr 1-34

L63 ANSWER 1 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:40293 HCAPLUS Full-text

DOCUMENT NUMBER: 146:287727

TITLE: Library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors

AUTHOR(S): Feng, Xizhi; Jiang, Xi

CORPORATE SOURCE: Division of Infectious Diseases, Department of Pediatrics, Cincinnati Children's Hospital Medical Center, University of Cincinnati College of Medicine, Cincinnati, OH, USA

SOURCE: Antimicrobial Agents and Chemotherapy (2007), 51(1), 324-331

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Human noroviruses (NVs) are a common cause of nonbacterial gastroenteritis. The disease is difficult to control due to its widespread nature and the lack of antivirals or vaccines against NVs. The recent identification of human histo-blood group antigens (HBGAs) as NV receptors opens a new way for the discovery and design of antivirals against NVs. A saliva-based enzyme immune assay (EIA) was used to screen a synthetic-compound library for inhibition of the binding of norovirus-like particles to HBGA receptors. Among 5,000 compds. tested in the first round of screening, 153 compds. exhibited >50% inhibition of the binding of VA387 (an NV that binds to A, B, and H epitopes)

to the A antigen in saliva at .apprx.50 µg/mL, and 14 of the 153 compds. revealed strong inhibition, with a 50% effective concentration of <15 µM. Ten and 11 of the 14 compds. also revealed inhibition of the binding of VA387 to the B and H antigens, resp. Seven and 6 of the 14 compds. also blocked the binding of the prototype Norwalk virus (A and H binder) to the A and H antigens, resp. One compound significantly inhibited the binding of MOH (A and B binder) to the A and B antigens, but no compound revealed any inhibitory effect on the binding of a Lewis binding strain (VA207) to the Lewis antigens. The EIA is a high-throughput method for large-scale library screening for antivirals against NVs. Studies to further characterize the lead compds. and to screen addnl. compds. for other NVs are ongoing in our laboratory

CC 1-5 (Pharmacology)

Section cross-reference(s): 10, 15

ST antiviral screening blood group substance binding capsid norovirus gastroenteritis

IT Blood-group substances

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(A; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Blood-group substances

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(B; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Blood-group substances

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(H; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Proteins

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(capsid; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT High throughput screening

(drug; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Drug screening

(high throughput; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Antiviral agents

Human

Norovirus

Protein-protein interaction

Saliva

Self-association

Viral capsid

(library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Infection

(viral, viral gastroenteritis; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT Gastroenteritis

(viral; library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT 93261-45-1 119004-78-3 169330-02-3 182196-74-3 198973-47-6
303205-03-0 328284-34-0 328286-75-5 635699-97-7 697785-71-0
927813-03-4 927813-04-5 927813-05-6 927813-06-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

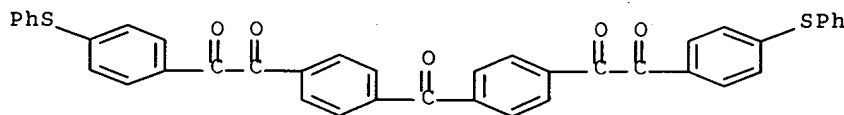
(library screen for inhibitors targeting norovirus binding to histo-blood group antigen receptors)

IT 182196-74-3

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(library screen for inhibitors targeting norovirus binding to
histo-blood group antigen receptors)

RN 182196-74-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-
(CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 2 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1110858 HCAPLUS Full-text

DOCUMENT NUMBER: 147:166715

TITLE: New thermosetting poly(phenylquinoxalines)

AUTHOR(S): Belomoina, N. M.; Rusanov, A. L.; Askadskii, A. A.

CORPORATE SOURCE: Inst. Elementoorg. Soedininii im. A. N. Nesmeyanova,
RAN, Russia

SOURCE: Plasticheskie Massy (2006), (8), 33-36

CODEN: PLMSAI; ISSN: 0554-2901

PUBLISHER: ZAO NP "Plasticheskie Massy"

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB A branching hexaketone monomer was synthesized from mellitic acid and 4-aminobenzil and its ability to react with triple molar excess of a diamine was demonstrated in a model reaction with o-phenylenediamine. Seven poly(phenylquinoxalines) were prepared using branching monomer in combination with various tetraketones and tetraamines. The prepared polymers were characterized by softening temperature, tensile strength, and elasticity.

CC 35-5 (Chemistry of Synthetic High Polymers)

ST polyphenylquinoxaline synthesis thermal mech property

IT Polyquinoxalines

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-; synthesis and characterization of branched thermosetting
poly(phenylquinoxalines))

IT Polyquinoxalines

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-; synthesis and characterization of branched
thermosetting poly(phenylquinoxalines))

IT Polyquinoxalines

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketone-; synthesis and characterization of branched
thermosetting poly(phenylquinoxalines))

IT Polyimides, preparation

Polyketones

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyquinoxaline-; synthesis and characterization of branched
thermosetting poly(phenylquinoxalines))

IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyimide-polyquinoxaline-; synthesis and characterization of branched
thermosetting poly(phenylquinoxalines))

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IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-polyquinoxaline-; synthesis and characterization of
branched thermosetting poly(phenylquinoxalines))

IT Polyethers, preparation
Polysulfones, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-; synthesis and characterization of branched
thermosetting poly(phenylquinoxalines))

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polysulfone-; synthesis and characterization of branched thermosetting
poly(phenylquinoxalines))

IT Elongation, mechanical
Tensile strength
Thermal stability
(synthesis and characterization of branched thermosetting
poly(phenylquinoxalines))

IT 914612-43-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(model compound; synthesis and characterization of branched thermosetting
poly(phenylquinoxalines))

IT 95-54-5, o-Phenylenediamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(model reaction; synthesis and characterization of branched
thermosetting poly(phenylquinoxalines))

IT 517-60-2, Mellitic acid 31029-96-6, 4-Aminobenzil
RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer synthesis; synthesis and characterization of branched
thermosetting poly(phenylquinoxalines))

IT 75043-15-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(monomer; synthesis and characterization of branched thermosetting
poly(phenylquinoxalines))

IT 944042-80-2P 944042-81-3P 944042-82-4P 944042-83-5P
944042-84-6P 944042-85-7P 944042-86-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of branched thermosetting
poly(phenylquinoxalines))

IT 944042-83-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis and characterization of branched thermosetting
poly(phenylquinoxalines))

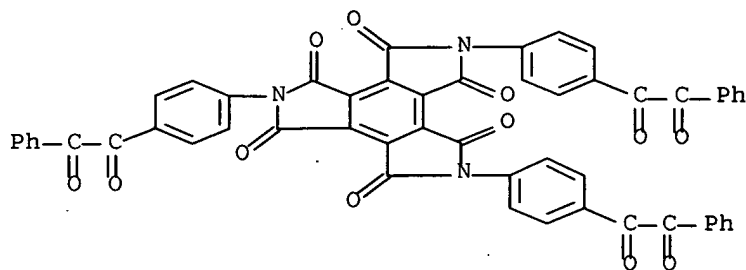
RN 944042-83-5 HCAPLUS

CN 1H-Benzo[1,2-c:3,4-c':5,6-c'']tripyrrole-1,3,4,6,7,9(2H,5H,8H)-hexone,
2,5,8-tris[4-(2-oxo-2-phenylacetyl)phenyl]-, polymer with
1,1'-(carbonyldi-4,1-phenylene)bis[2-phenylethanedione] and
4,4'-oxybis[1,2-benzenediamine] (CA INDEX NAME)

CM 1

CRN 75043-15-1

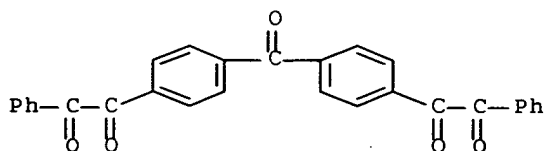
CMF C54 H27 N3 O12



CM 2

CRN 31224-78-9

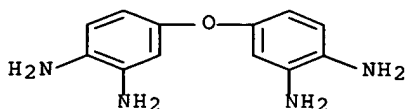
CMF C29 H18 O5



CM 3

CRN 2676-59-7

CMF C12 H14 N4 O



L63 ANSWER 3 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 2006:214451 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 146:101135

TITLE: Preparation and study of new poly(phenylquinoxaline-ether-imide)s

AUTHOR(S): Lungu, Ramona; Hamciuc, Elena; Bruma, Maria; Szesztay, Marta; Muller, Peter; Belomoina, Nataliya M.

CORPORATE SOURCE: Institute of Macromolecular Chemistry, Iasi, 700487, Rom.

SOURCE: Revue Roumaine de Chimie (2005), 50(7-8), 579-587, 2 plates

CODEN: RRCHAX; ISSN: 0035-3930

PUBLISHER: Editura Academiei Romane

DOCUMENT TYPE: Journal

LANGUAGE: English

AB New aromatic poly(phenylquinoxaline-ether-imide)s were synthesized by solution polycondensation reaction of aromatic diamines containing preformed

Kathleen Fuller EIC1700 571-272-2505

phenylquinoxaline groups with two bis(ether-anhydride)s, namely 1,1-bis[p-(3,4-dicarboxyphenoxy)phenyl]cyclohexane dianhydride or 1,1-bis[p-(3,4-dicarboxyphenoxy)phenyl]fluorene dianhydride. All polymers were easily soluble in organic solvents, such as N-methylpyrrolidinone and dimethylacetamide, and even in less polar solvents like pyridine, THF or chloroform, and gave flexible films by casting of such solns. They showed high thermal stability, with an initial decomposition temperature above 300° and a glass transition temperature in the range of 220-271°. The polymer films exhibited good mech. properties with tensile strength in the range of 38.5-78.2 MPa, elastic modulus in the range of 2.8-3.1 GPa and elongation to break in the range of 1.5-4.2 %. The polymers mol. weight was found to be in the range of 12000-23000 g/mol and number-average mol. wts. in the range of 6000-11000 g/mol.

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36

ST arom diamine bisether anhydride condensation imidization

polyphenylquinoxalineetherimide prepn property

IT Polyimides, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(cardo; preparation and properties of new poly(phenylquinoxaline-ether-imide)s)

IT Polyquinoxalines

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyether-polyimide-polyketone-, aromatic; preparation and properties of

new

poly(phenylquinoxaline-ether-imide)s)

IT Polyketones

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyether-polyimide-polyquinoxaline-, aromatic; preparation and properties

of

new poly(phenylquinoxaline-ether-imide)s)

IT Polyimides, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyether-polyketone-polyquinoxaline-, aromatic; preparation and

properties of

new poly(phenylquinoxaline-ether-imide)s)

IT Polyimides, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyether-polyphenylquinoxaline-; preparation and properties of new

poly(phenylquinoxaline-ether-imide)s)

IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyimide-polyketone-polyquinoxaline-, aromatic; preparation and

properties of

new poly(phenylquinoxaline-ether-imide)s)

IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyimide-polyphenylquinoxaline-; preparation and properties of new

poly(phenylquinoxaline-ether-imide)s)

IT Cardo polymers

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyimides; preparation and properties of new poly(phenylquinoxaline-

ether-

imide)s)

IT Polyquinoxalines

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyphenylquinoxalines, polyether-polyimide-; preparation and properties

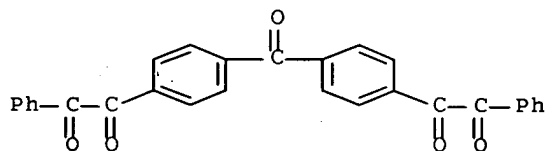
of

new poly(phenylquinoxaline-ether-imide)s)

IT Elongation at break

Glass transition temperature
Melting point
Polymerization
Solubility
Tensile strength
Thermal properties
Young's modulus

- (preparation and properties of new poly(phenylquinoxaline-ether-imide)s)
- IT 843-55-0, 1,1-Bis(4-hydroxyphenyl)cyclohexane 3236-71-3,
9,9-Bis(4-hydroxyphenyl)fluorene 31643-49-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(in bis(ether-anhydride) preparation; preparation and properties of new
poly(phenylquinoxaline-ether-imide)s)
- IT 6264-66-0, 3,4,4'-Triamino-diphenylether 21454-19-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(in diaminophenylquinoxalines preparation; preparation and properties of
new
poly(phenylquinoxaline-ether-imides))
- IT 86386-79-0P 86386-81-4P 247939-94-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepared diaminophenylquinoxaline; preparation and properties of new
poly(phenylquinoxaline-ether-imide)s)
- IT 31224-78-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepared diaminophenylquinoxaline; preparation and properties of new
poly(phenylquinoxaline-ether-imide)s)
- IT 59507-08-3P 125567-05-7P 917977-84-5P 917977-85-6P 917977-86-7P
917977-87-8P 917977-88-9P 917977-89-0P 917977-90-3P 917977-91-4P
917977-92-5P 917977-93-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of new poly(phenylquinoxaline-ether-imide)s)
- IT 3363-97-1, 1,4-Bis(phenylglyoxalyl)benzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and properties of new poly(phenylquinoxaline-ether-imides))
- IT 31224-78-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepared diaminophenylquinoxaline; preparation and properties of new
poly(phenylquinoxaline-ether-imide)s)
- RN 31224-78-9 HCAPLUS
- CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 4 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:999636 HCAPLUS Full-text
DOCUMENT NUMBER: 143:440853
TITLE: Synthesis and polymer analogous transformations of new
functionalized polyheteroarylenes
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.;
Likhatchev, D. Yu.

Kathleen Fuller EIC1700 571-272-2505

CORPORATE SOURCE: A. N. Nesmeyanov Institute for Organoelement
Compounds, Russian Academy of Sciences, Moscow,
119991, Russia

SOURCE: High Performance Polymers (2005), 17(3), 449-465
CODEN: HPPOEX; ISSN: 0954-0083

PUBLISHER: Sage Publications

DOCUMENT TYPE: Journal

LANGUAGE: English

AB New poly[(4-fluorophenyl)quinoxaline]s were prepared by polycyclocondensation of bis(o-phenylenediamines) with bis(a-diketone)s - bis(4-fluorophenylglyoxalyl)arylenes. The effect of fluorine atoms in poly(phenylquinoxaline)s on the solubility, thermal characteristics and other properties of the resulting polymers was studied. As the quinoxaline rings act as the activators of fluorine atoms in the reactions of aromatic nucleophilic substitution, poly[(4-fluorophenyl)quinoxaline]s were transformed into poly(phenylquinoxalines) containing aroxy, p-carboxyphenoxy and aroxysulfonic acids groups.

CC 35-5 (Chemistry of Synthetic High Polymers)

ST functionalized polyfluorophenylquinoxaline analogous prepn transformation

IT Substitution reaction, nucleophilic

(aromatic; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polymerization

(cyclopolymer.; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(fluorine-containing, functionalization of; preparation of novel

functionalized

polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polyether-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polyether-polyketone-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyketones

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polyether-polyquinoxaline-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(polyketone-, fluorine-containing, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyethers, preparation
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyketone-polyquinoxaline-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Fluoropolymers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, fluorine-containing; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyketones
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyquinoxaline-, fluorine-containing, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Fluoropolymers, preparation
Polyethers, preparation
Polysulfones, preparation
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polyquinoxaline-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Polyquinoxalines
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(polysulfone-, functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Elongation, mechanical
Solubility
Tensile strength
Thermal stability
Viscosity
(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT Softening (mechanical)
(softening point; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT 72383-21-2P 72412-83-0P 188577-22-2P
188577-31-3P 188577-36-8P 188652-39-3P 188652-40-6P

188652-41-7P 201336-92-7P 201336-93-8P
201336-94-9P 201336-95-0P 201336-96-1P 201336-97-2P
201336-98-3P 201336-99-4P 201337-00-0P 201337-01-1P 201337-02-2P
201337-03-3P 201490-67-7P 201490-68-8P 201490-69-9P 201490-70-2P
201490-71-3P 201490-72-4P 201490-73-5P 201490-74-6P 201490-75-7P
201490-76-8P 201490-77-9P 201490-78-0P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT 99-96-7DP, p-Hydroxybenzoic acid, reaction products with polyfluorophenylquinoxalines 108-39-4DP, 3-Methylphenol, reaction products with polyfluorophenylquinoxalines 108-95-2DP, Phenol, reaction products with polyfluorophenylquinoxalines 825-90-1DP, Sodium p-hydroxybenzenesulfonate, reaction products with polyfluorophenylquinoxalines 20349-39-7DP, reaction products with polyfluorophenylquinoxalines 72383-21-2DP, functionalized 72412-83-0DP, functionalized 188577-22-2DP, functionalized 188577-31-3DP, functionalized 188577-36-8DP, functionalized 188652-39-3DP, functionalized 188652-40-6DP, functionalized 188652-41-7DP, functionalized 201336-92-7DP, functionalized 201336-93-8DP, functionalized 201336-94-9DP, functionalized 201336-95-0DP, functionalized 201336-97-2DP, functionalized 201336-98-3DP, functionalized 201336-99-4DP, functionalized 201337-00-0DP, functionalized 201337-01-1DP, functionalized 201337-02-2DP, functionalized 201337-03-3DP, functionalized 201490-67-7DP, functionalized 201490-68-8DP, functionalized 201490-69-9DP, functionalized 201490-70-2DP, functionalized 201490-71-3DP, functionalized 201490-72-4DP, functionalized 201490-73-5DP, functionalized 201490-74-6DP, functionalized 201490-75-7DP, functionalized 201490-76-8DP, functionalized 201490-77-9DP, functionalized 201490-78-0DP, functionalized

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT 95-54-5, o-Phenylenediamine, reactions 108-86-1, Bromobenzene, reactions 766-98-3, 4-Fluorophenylacetylene 14173-05-8, Triiodoacrolein

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT 2789-89-1P, 4,4'-Dibromotolane 2990-17-2P 3988-03-2P, 4,4'-Dibromobenzophenone 5405-28-7P, 1,2-Bis(4-bromophenyl)-1,2-dibromoethane 19802-70-1P, 2,3-Di(4-bromophenyl)quinoxaline 21655-73-2P 35578-47-3P, 4,4'-Dibromobenzil 194936-18-0P 194936-20-4P 194936-28-2P 194936-31-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

IT 72383-21-2P 188577-22-2P 188577-31-3P 188577-36-8P 201336-92-7P 201336-93-8P 201336-94-9P 201336-95-0P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(functionalization of; preparation of novel functionalized polyfluorophenylquinoxaline analogous and their transformations and properties)

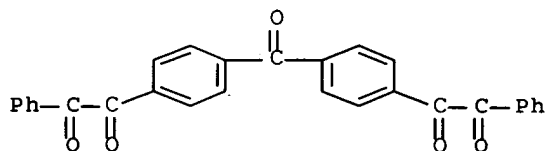
RN 72383-21-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

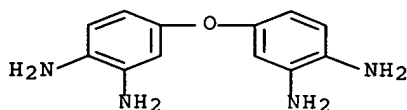
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



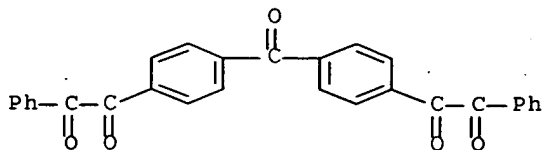
RN 188577-22-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

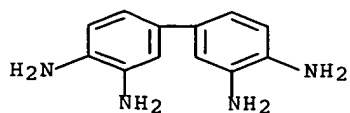
CMF C29 H18 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



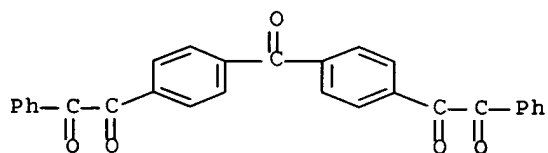
RN 188577-31-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

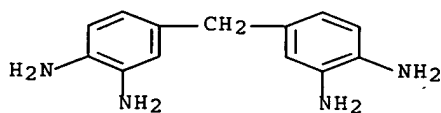
CMF C29 H18 O5



CM 2

CRN 1779-05-1

CMF C13 H16 N4



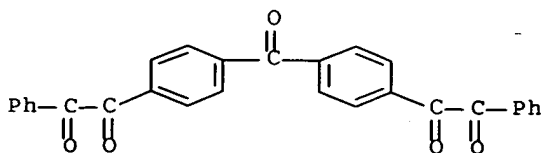
RN 188577-36-8 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

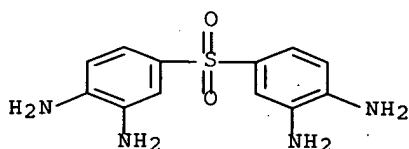
CRN 31224-78-9

CMF C29 H18 O5



CM 2

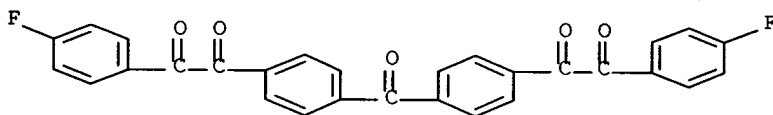
CRN 13224-79-8
CMF C12 H14 N4 O2 S



RN 201336-92-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

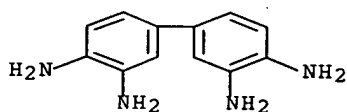
CM 1

CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

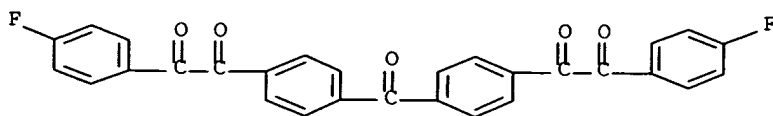
CRN 91-95-2
CMF C12 H14 N4



RN 201336-93-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

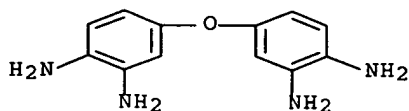
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CMF C29 H16 F2 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



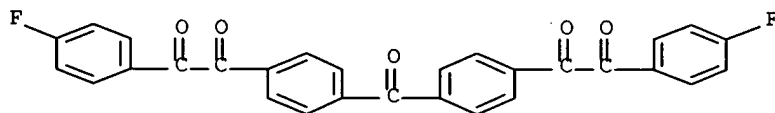
RN 201336-94-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

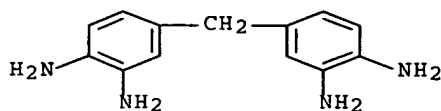
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CM 2

CRN 1779-05-1

CMF C13 H16 N4



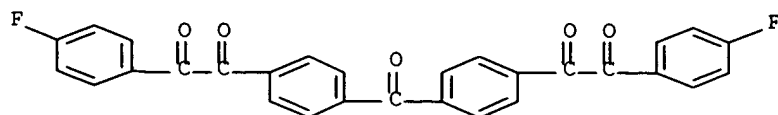
RN 201336-95-0 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

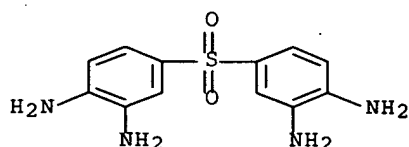
CMF C29 H16 F2 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



IT 72383-21-2DP, functionalized 188577-22-2DP,
functionalized 188577-31-3DP, functionalized
188577-36-8DP, functionalized 201336-92-7DP,
functionalized 201336-93-8DP, functionalized
201336-94-9DP, functionalized 201336-95-0DP,
functionalized

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of novel functionalized polyfluorophenylquinoxaline analogues
and their transformations and properties)

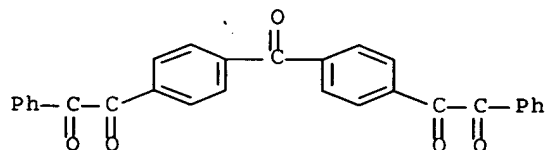
RN 72383-21-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with
4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

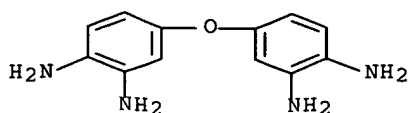
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



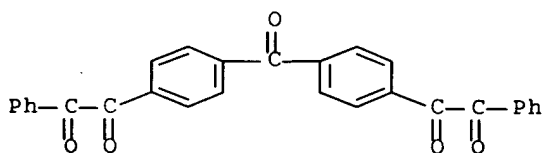
RN 188577-22-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

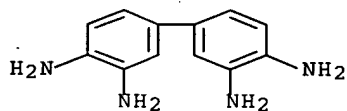
CMF C29 H18 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



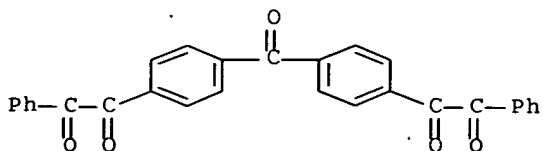
RN 188577-31-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

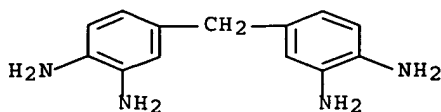
CMF C29 H18 O5



CM 2

Kathleen Fuller EIC1700 571-272-2505

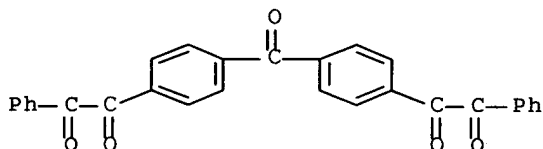
CRN 1779-05-1
CMF C13 H16 N4



RN 188577-36-8 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

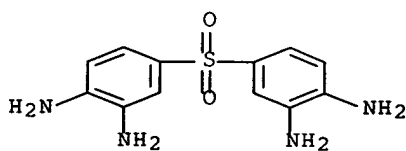
CM 1

CRN 31224-78-9
CMF C29 H18 O5



CM 2

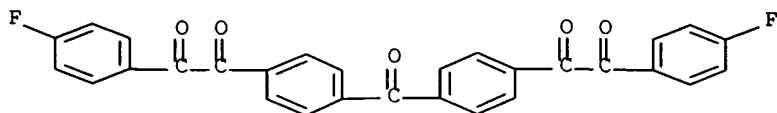
CRN 13224-79-8
CMF C12 H14 N4 O2 S



RN 201336-92-7 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

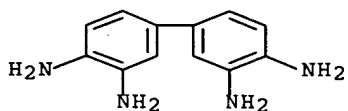
CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



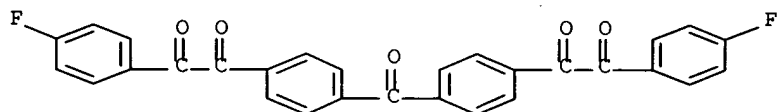
RN 201336-93-8 HCAPLUS

CN Ethanedi-one, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

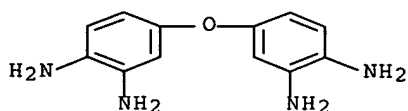
CMF C29 H16 F2 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



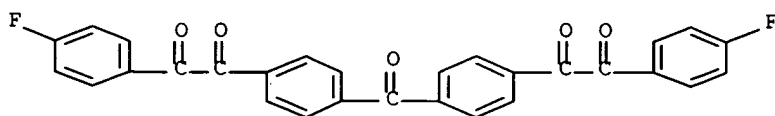
RN 201336-94-9 HCAPLUS

CN Ethanedi-one, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-methylenabis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

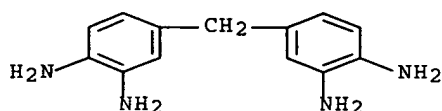
CMF C29 H16 F2 O5



CM 2

CRN 1779-05-1

CMF C13 H16 N4



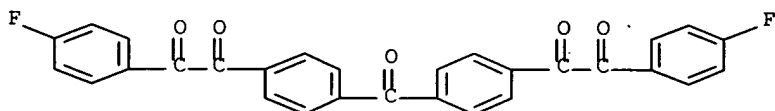
RN 201336-95-0 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

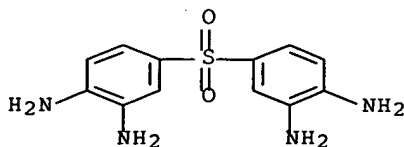
CMF C29 H16 F2 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



IT 194936-28-2P

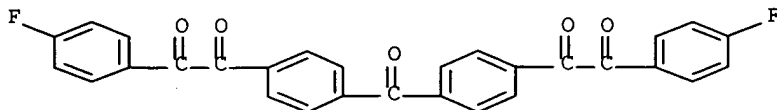
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

Kathleen Fuller EIC1700 571-272-2505

(preparation of novel functionalized polyfluorophenylquinoxaline analogues and their transformations and properties)

RN 194936-28-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)- (9CI)
(CA INDEX NAME)



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 5 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:250956 HCAPLUS Full-text

DOCUMENT NUMBER: 139:53443

TITLE: New carboxylated poly(aryl ether quinoxalines)

AUTHOR(S): Keshtov, M. L.; Rusanov, A. L.; Komarova, L. I.;
Keshtova, S. V.; Sarkisyan, G. B.; Ronova, I. A.

CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds,
Russian Academy of Sciences, Moscow, 119991, Russia

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B
(2002), 44(8), 1319-1324

CODEN: VSSBEE; ISSN: 1023-3091

PUBLISHER: MAIK Nauka/Interperiodica Publishing

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB A number of carboxylated poly(arylesterquinoxalines) were synthesized by treating various poly(arylesterbenzyls) with 3,4-diaminobenzoic acid. The produced polymers were characterized by FTIR and ¹³C NMR spectroscopy, and their glass transition temps. and thermooxidative stability were determined by DSC and TGA. It was shown that the glass transition temps. and temps. corresponding to the onset of degradation of these polymers are linearly proportional to the number of aromatic nuclei in Kuhn segments.

CC 35-8 (Chemistry of Synthetic High Polymers)

ST polyether polydiketone synthesis diaminobenzoic acid condensation polyquinoxaline

IT Elongation, mechanical

Glass transition temperature

Tensile strength

Thermal stability

(of aromatic polyether-polyketones and corresponding carboxy-containing polyquinoxalines)

IT Polyketones

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, cardo, polydiketone-, reaction products with
3,4-diaminobenzoic acid, polyquinoxalines; preparation of aromatic
polyether-polyketones and their transformation into corresponding
carboxy-containing polyquinoxalines)

IT Polyketones

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, polydiketone-, reaction products with 3,4-diaminobenzoic
acid, polyquinoxalines; preparation of aromatic polyether-polyketones and
their
transformation into corresponding carboxy-containing polyquinoxalines)

IT Cardo polymers

Kathleen Fuller EIC1700 571-272-2505

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketones, polydiketone-, reaction products with
3,4-diaminobenzoic acid, polyquinoxalines; preparation of aromatic
polyether-polyketones and their transformation into corresponding
carboxy-containing polyquinoxalines)

IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, cardo, polydiketone-, reaction products with
3,4-diaminobenzoic acid, polyquinoxalines; preparation of aromatic
polyether-polyketones and their transformation into corresponding
carboxy-containing polyquinoxalines)

IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, polydiketone-, reaction products with 3,4-diaminobenzoic
acid, polyquinoxalines; preparation of aromatic polyether-polyketones and
their

transformation into corresponding carboxy-containing polyquinoxalines)

IT 200485-28-5P 200485-29-6P 200485-30-9P

200485-31-0P 200485-40-1P 200485-41-2P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)

(preparation of aromatic polyether-polyketones and their transformation

into

corresponding carboxy-containing polyquinoxalines)

IT 619-05-6DP, 3,4-Diaminobenzoic acid, reaction products with aromatic
polyether-polydiketones 200485-28-5DP, reaction products with
3,4-diaminobenzoic acid 200485-29-6DP, reaction products with
3,4-diaminobenzoic acid 200485-30-9DP, reaction products with
3,4-diaminobenzoic acid 200485-31-0DP, reaction products with
3,4-diaminobenzoic acid 200485-40-1DP, reaction products with
3,4-diaminobenzoic acid 200485-41-2DP, reaction products with
3,4-diaminobenzoic acid

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of aromatic polyether-polyketones and their transformation

into

corresponding carboxy-containing polyquinoxalines)

IT 200485-28-5P 200485-29-6P 200485-30-9P

200485-31-0P 200485-40-1P 200485-41-2P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)

(preparation of aromatic polyether-polyketones and their transformation

into

corresponding carboxy-containing polyquinoxalines)

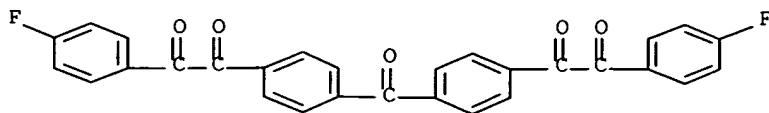
RN 200485-28-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-,
polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

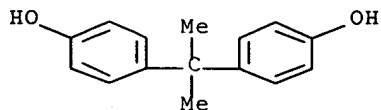
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CM 2

CRN 80-05-7

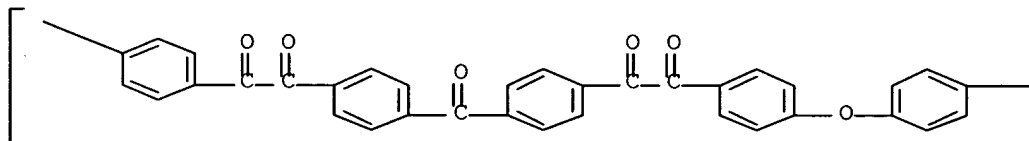
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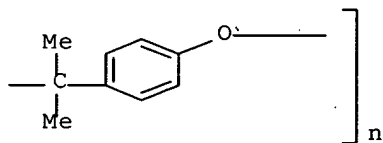
RN 200485-29-6 HCAPLUS

CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



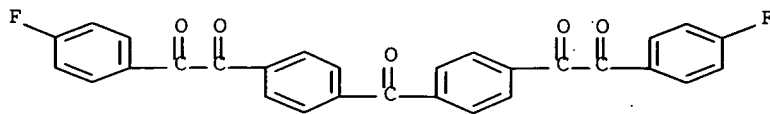
RN 200485-30-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(9H-fluoren-9-ylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

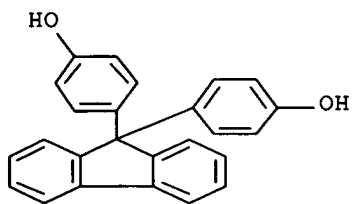
CRN 194936-28-2

CMF C29 H16 F2 O5



CM 2

CRN 3236-71-3
CMF C25 H18 O2



RN 200485-31-0 HCAPLUS
CN Poly[oxy-1,4-phenylene-9H-fluorene-9-ylidene-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

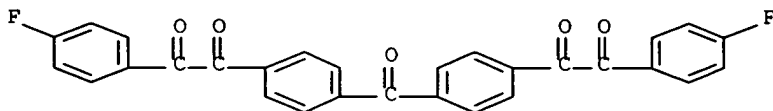
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RN 200485-40-1 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 3,3-bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone (9CI) (CA INDEX NAME)

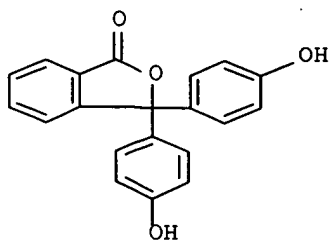
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CRN 194936-28-2
CMF C29 H16 F2 O5



CM 2

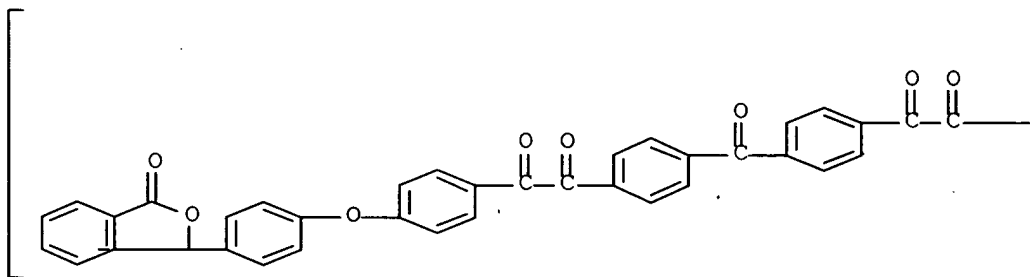
CRN 77-09-8
CMF C20 H14 O4



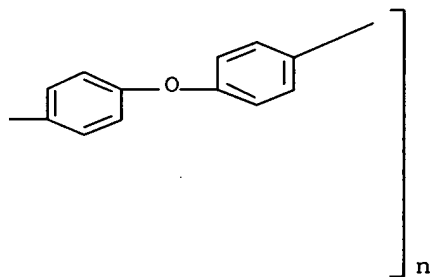
RN 200485-41-2 HCAPLUS

CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 200485-28-5DP, reaction products with 3,4-diaminobenzoic acid
 200485-29-6DP, reaction products with 3,4-diaminobenzoic acid
 200485-30-9DP, reaction products with 3,4-diaminobenzoic acid
 200485-31-0DP, reaction products with 3,4-diaminobenzoic acid
 200485-40-1DP, reaction products with 3,4-diaminobenzoic acid
 200485-41-2DP, reaction products with 3,4-diaminobenzoic acid
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation of aromatic polyether-polyketones and their transformation
 into corresponding carboxy-containing polyquinoxalines)

RN 200485-28-5 HCAPLUS

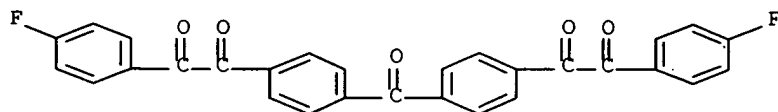
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-,

polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

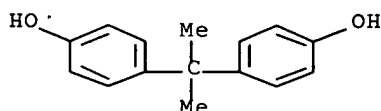
CMF C29 H16 F2 O5



CM 2

CRN 80-05-7

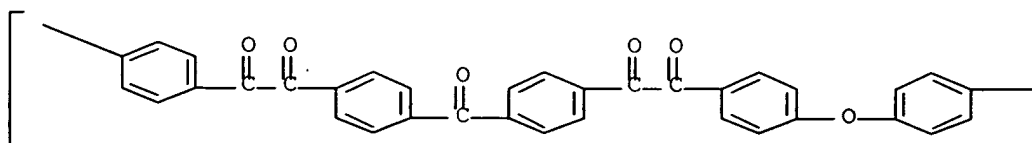
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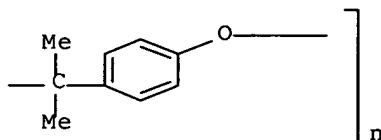
RN 200485-29-6 HCAPLUS

CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



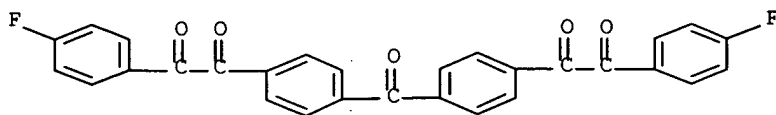
RN 200485-30-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(9H-fluoren-9-ylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

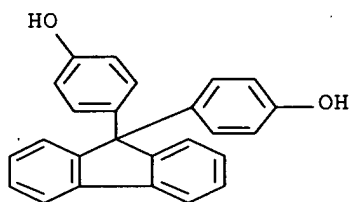
CMF C29 H16 F2 O5



CM 2

CRN 3236-71-3

CMF C25 H18 O2



RN 200485-31-0 HCAPLUS

CN Poly[oxy-1,4-phenylene-9H-fluorene-9-ylidene-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

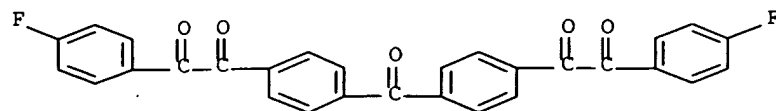
RN 200485-40-1 HCAPLUS

CN Ethanedi-one, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 3,3-bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

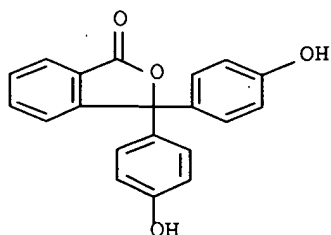
CMF C29 H16 F2 O5



CM 2

CRN 77-09-8

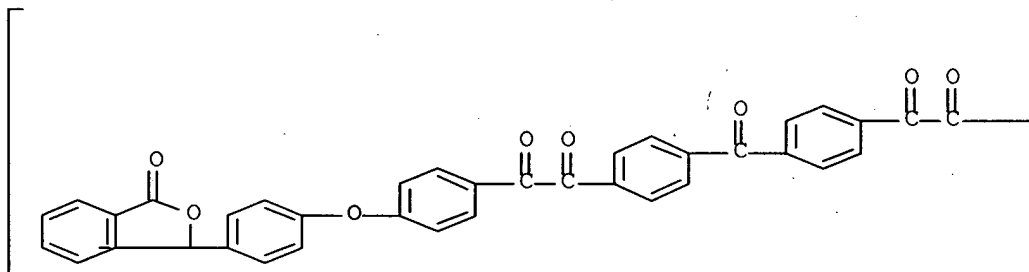
CMF C20 H14 O4



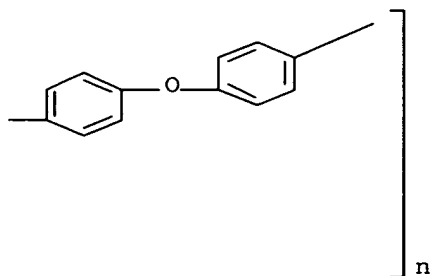
RN 200485-41-2 HCAPLUS

CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



DOCUMENT NUMBER: 138:39891
TITLE: New silicon-containing phenylquinoxaline-imide polymers
AUTHOR(S): Hamciuc, Elena; Schulz, Burkhard; Kopnick, Thomas; Kaminorz, Yvette; Bruma, Maria
CORPORATE SOURCE: Institute of Macromolecular Chemistry, Iasi, 6600, Rom.
SOURCE: High Performance Polymers (2002), 14(1), 63-75
CODEN: HPPOEX; ISSN: 0954-0083
PUBLISHER: Sage Publications
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A series of new aromatic polyimides, with phenylquinoxaline rings and dimethylsilane units, has been synthesized by solution polycondensation reaction of aromatic diamines containing phenylquinoxaline groups with a dianhydride incorporating dimethylsilane linkage, namely bis (3,4-dicarboxyphenyl) dimethylsilane dianhydride. All polymers were easily soluble in organic solvents, such as N-methylpyrrolidinone, dimethylacetamide, pyridine and chloroform, and showed high thermal stability with decomposition temperature being above 480°C and glass transition temperature in the range of 245-266°C. Very thin coatings were deposited from polymer solns. onto silicon wafers and exhibited smooth, pinhole-free surface in atomic force microscopy investigations. These polymers showed blue fluorescence in solution and films, with a maximum in the range of 415-425 nm.

CC 37-3 (Plastics Manufacture and Processing)

ST silicon contg phenylquinoxaline polyimide

IT Polyimides, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyether-; silicon-containing phenylquinoxaline-imide polymers)

IT Polyketones

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyether-polyimide-; silicon-containing phenylquinoxaline-imide polymers)

IT Polyimides, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyether-polyketone-; silicon-containing phenylquinoxaline-imide polymers)

IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyimide-; silicon-containing phenylquinoxaline-imide polymers)

IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polycarbosilane-polyimide-polyketone-; silicon-containing phenylquinoxaline-imide polymers)

IT Polycarbosilanes

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-; silicon-containing phenylquinoxaline-imide polymers)

IT Polycarbosilanes

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyimide-polyketone-; silicon-containing phenylquinoxaline-imide polymers)

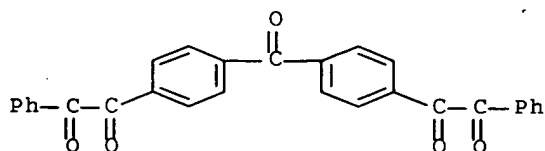
IT Fluorescence

Glass transition temperature
UV and visible spectra
Viscosity

(silicon-containing phenylquinoxaline-imide polymers)

IT 478812-48-5P 478812-49-6P 478812-50-9P 478812-51-0P 478812-52-1P
478812-53-2P 478812-54-3P 478812-55-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(silicon-containing phenylquinoxaline-imide polymers)
IT 3363-97-1 6264-66-0 21454-19-3 31224-78-9 47709-64-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(silicon-containing phenylquinoxaline-imide polymers)
IT 42297-18-7P 86386-79-0P 86386-80-3P 86386-81-4P 247939-94-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(silicon-containing phenylquinoxaline-imide polymers)
IT 31224-78-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(silicon-containing phenylquinoxaline-imide polymers)
RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 7 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:551168 HCAPLUS Full-text

DOCUMENT NUMBER: 131:272306

TITLE: New approach to the synthesis of poly(quinoxalines) bearing diaryl ether substituents

AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.; Petrovskii, P. V.

CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1999), 41(1), 66-69

CODEN: VSSBEE; ISSN: 1023-3091

PUBLISHER: MAIK Nauka

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB A new synthetic method was developed to prepare poly(quinoxalines) containing diaryl ether side groups which involves polymer-analogous transformations of poly(4-fluorophenyl)quinoxalines. Aromatic nucleophilic substitution was carried over via two synthetic routes. According to the first approach, the synthesized poly[(4-fluorophenyl)quinoxalines] were isolated from solution, dissolved in N-methyl-2-pyrrolidone, and treated with m-cresol in the presence of K₂CO₃. The second method includes the synthesis of poly[(4-fluorophenyl)quinoxalines] in m-cresol, followed by the addition of excess N-methyl-2-pyrrolidone and K₂CO₃ and the substitution of fluorine atom; at the first stage m-cresol is used as a solvent, while at the second stage, it works as a reagent.

CC 35-8 (Chemistry of Synthetic High Polymers)

ST fluorine nucleophilic substitution cresol fluorophenyl polyquinoxaline aryl ether synthesis

IT Polyquinoxalines

Polyquinoxalines

RL: RCT (Reactant); RACT (Reactant or reagent)

(fluorine-containing, -polyether; synthesis of poly(quinoxalines) bearing

Kathleen Fuller EIC1700 571-272-2505

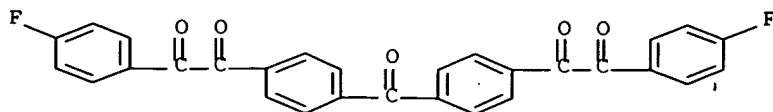
diaryl ether substituents via F nucleophilic substitution with m-cresol)

- IT Tensile strength
(of films; of poly(quinoxalines) bearing diaryl ether substituents)
- IT Dielectric constant
Thermal stability
(of poly(quinoxalines) bearing diaryl ether substituents)
- IT Polyquinoxalines
Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, reaction products, with m-cresol; synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)
- IT Fluoropolymers, reactions
Fluoropolymers, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(polyquinoxaline-, -polyether; synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)
- IT Polyethers, preparation
Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-, reaction products, with m-cresol; synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)
- IT Substitution reaction, nucleophilic
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)
- IT 108-39-4DP, m-Cresol, reaction products with fluorophenyl side group-containing polyquinoxalines 201336-93-8DP, nucleophilic substitution product with m-cresol 201490-68-8DP, nucleophilic substitution product with m-cresol
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)
- IT 201336-93-8P 201490-68-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)
- IT 201336-93-8DP, nucleophilic substitution product with m-cresol
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)
- RN 201336-93-8 HCAPLUS
- CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

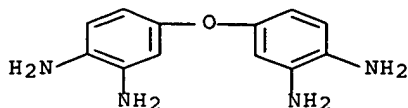
CMF C29 H16 F2 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



IT 201336-93-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of poly(quinoxalines) bearing diaryl ether substituents via F nucleophilic substitution with m-cresol)

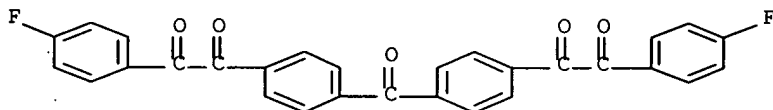
RN 201336-93-8 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

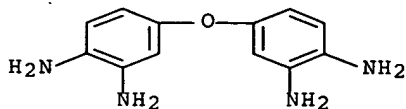
CMF C29 H16 F2 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O

L63 ANSWER 8 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:343237 HCAPLUS Full-text

DOCUMENT NUMBER: 131:158052

TITLE: Phenyl-substituted polyphenylenes from chloral derivatives

AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.;
Shchegolikhin, A. N.; Petrovskii, P. V.; Keshtova, S.

Kathleen Fuller EIC1700 571-272-2505

V.; Blagodatskikh, I. V.; Mikitaev, A. K.
CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds,
Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B
(1998), 40(6), 902-908
CODEN: VSSBEE; ISSN: 1023-3091
PUBLISHER: MAIK Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian

- AB New bis(triphenylcyclopentadienone)arylenes were synthesized by the reaction of bis(phenylgly-oxalyl)arylenes with 1,3-diphenylacetone in ethanol. New phenyl-substituted polyphenylenes were obtained from bis(triphenylcyclopentadienone)arylenes and bis(acetylene)s by the Diels-Alder reaction in trichlorobenzene. Some properties of the resulting polymers and the films made of these polymers were studied.
- CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36
- ST diphenylacetone bisphenylglyoxalylarylene reaction
bistriphenylcyclopentadienonearylene monomer prepn; phenyl substituted phenylene group contg polymer prepn; polyacetylene Diels Alder reaction
phenylene group polymer prepn
- IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyacetylene-; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
- IT Polyacetylenes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
- IT Diels-Alder reaction
Elongation, mechanical
Tensile strength
(preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
- IT Polyacetylenes, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
- IT 479-33-4
RL: PRP (Properties)
(model compound; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
- IT 147613-78-3P 207450-54-2P 236743-07-0P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)
- IT 236743-08-1DP, decarbonylated 236743-10-5DP, decarbonylated
236743-11-6DP, decarbonylated 236743-12-7DP, decarbonylated
236743-13-8DP, decarbonylated 236743-14-9DP, decarbonylated
236743-15-0P 236743-16-1P 236743-17-2P 236743-18-3P 236743-19-4P
236743-20-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and characterization of phenyl-substituted phenylene

group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)

IT 102-04-5, 1,3-Diphenylacetone 115-19-5 5630-56-8, 4,4'-
Diiodobenzophenone 31224-78-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in monomer preparation; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)

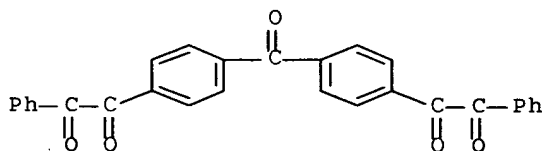
IT 31224-78-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in monomer preparation; preparation and characterization of phenyl-substituted phenylene group-containing polymers prepared by Diels-Alder reaction from acetylene derivative-bis(bisphenylglyoxalyl)arylene polymers)

RN 31224-78-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 9 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:440027 HCAPLUS Full-text

DOCUMENT NUMBER: 129:122882

TITLE: Evaluation of the reactivity of new activated difluoroaromatic compounds

AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Keshtova, S. V.

CORPORATE SOURCE: A. N. Nesmeyanov Institute of Organoelement Compounds,
Russian Academy of Sciences, Moscow, 117813, Russia

SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (1998), 47(4), 602-603

CODEN: RCBUEY; ISSN: 1066-5285

PUBLISHER: Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

AB To evaluate the reactivity of new difluoroarom. compds. in nucleophilic substitution, the pos. charges on carbon atoms of C-F bonds were calculated using the quantum-chemical semiempirical PM3 method. A correlation between the charges calculated and the chemical shifts in the ^{19}F NMR spectra was established.

CC 35-2 (Chemistry of Synthetic High Polymers)

ST reactivity activated difluoroarom compd

IT NMR (nuclear magnetic resonance)

(in study of activated difluoroarom. compds.)

IT Reactivity ratio in polymerization

(of activated difluoroarom. compds.)

IT 194936-18-0 194936-19-1 194936-20-4 194936-23-7 194936-26-0

194936-28-2 194936-30-6 194936-31-7 210405-48-4

RL: PRP (Properties)

(reactivity of)

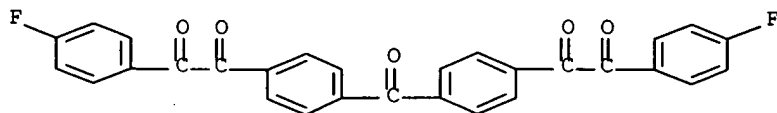
IT 194936-28-2

RL: PRP (Properties)

Kathleen Fuller EIC1700 571-272-2505

(reactivity of)

RN 194936-28-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)- (9CI)
(CA INDEX NAME)REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 10 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:272580 HCAPLUS Full-text

DOCUMENT NUMBER: 129:4473

TITLE: New bis(tetraarylcyclopentadienones)

AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Keshtova, S. V.;
Petrovskii, P. V.; Shchegolikhin, A. N.; Kirillov, A.
A.; Kireev, V. V.CORPORATE SOURCE: A. N. Nesmeyanov Institute of Organoelement Compounds,
Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya
Akademii Nauk, Seriya Khimicheskaya) (1998), 47(2),
318-320

CODEN: RCBUEY; ISSN: 1066-5285

PUBLISHER: Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Reactions of new bis(α -diketones) with 1,3-diphenylacetone resulted in the
formation of new bis(tetraarylcyclopentadienones).CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): 24ST arylcyclopentadienone prepn; carbonyldiphenylene biscyclopentadienone
prepn; oxocyclopentadienyl benzophenone prepn

IT Ketones, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(diketones; preparation of tetraarylcyclopentadienones)

IT 207450-54-2P 207450-55-3P 207450-56-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 102-04-5, 1,3-Diphenylacetone 182196-74-3 182196-75-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (carbonyldi-4,1-phenylene)bis[triphenylcyclopentadienones])

IT 31224-78-9, p,p'-Carbonyldibenzil

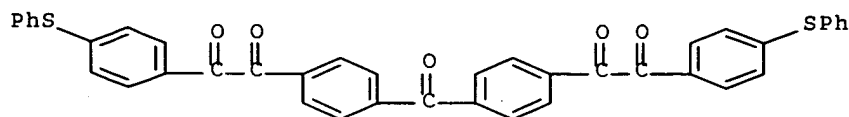
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (carbonyldiphenylene)bis[triphenylcyclopentadienones])

IT 182196-74-3 182196-75-4

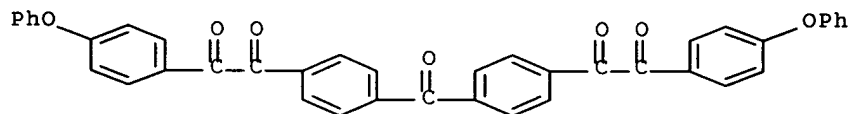
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of (carbonyldi-4,1-phenylene)bis[triphenylcyclopentadienones])

RN 182196-74-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-
(CA INDEX NAME)



RN 182196-75-4 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl) - (9CI)
(CA INDEX NAME)

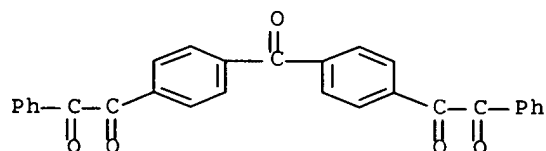
IT 31224-78-9, p,p'-Carbonyldibenzil

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of (carbonyldiphenylene)bis[triphenylcyclopentadienones])

RN 31224-78-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 11 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:6725 HCAPLUS Full-text

DOCUMENT NUMBER: 128:115308

TITLE: Poly(4-fluorophenylquinoxaline)s

AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.;
Mikitaev, A. K.CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds,
Russian Academy of Sciences, Moscow, 117813, RussiaSOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B
(1997), 39(10), 1584-1587

CODEN: VSSBEE; ISSN: 1023-3091

PUBLISHER: MAIK Nauka

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Poly(4-fluorophenylquinoxaline)s were prepared by polycyclocondensation of new bis(α -diketone)s, i.e., bis(4-fluorophenylglyoxalyl)arylenes, with bis(o-phenylenediamine)s. The effect of fluorine atoms in poly(phenylquinoxaline)s on the solubility and thermal characteristics of the resulting polymers was studied. The possibility of using poly(4-fluorophenylquinoxaline)s in the synthesis of polymers with substituents varying in bulkiness and structure is discussed.

CC 35-5 (Chemistry of Synthetic High Polymers)

Kathleen Fuller EIC1700 571-272-2505

ST polyphenylquinoxaline fluoropolymer prepn property

IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyether-polyketone-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyketones
Polyketones
Polyketones
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyether-polyphenylquinoxaline-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyether-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyketones
Polyketones
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyether-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyethers, preparation
Polyethers, preparation
Polyethers, preparation
Polysulfones, preparation
Polysulfones, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyketone-polyphenylquinoxaline-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyketone-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyethers, preparation
Polyethers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyketone-polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Fluoropolymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyketone-polyphenylquinoxaline-polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyethers, preparation
Polyethers, preparation
Polyketones
Polyketones
Polysulfones, preparation
Polysulfones, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-, fluorine-containing; preparation and

characterization

of poly(4-fluorophenylquinoxaline)s)

IT Fluoropolymers, preparation

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyethers, preparation

Polyketones

Polyketones

Polysulfones, preparation

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polysulfones, preparation

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polyketone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polysulfones, preparation

Polysulfones, preparation

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polyketone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyquinoxalines

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polyketones, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines

Polyquinoxalines

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polyketones; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyketones

Polyketones

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polysulfone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Fluoropolymers, preparation

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyketones

Polyketones

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxaline-polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyquinoxalines

Polyquinoxalines

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyether-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyether-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyether-polyketone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyether-polyketone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

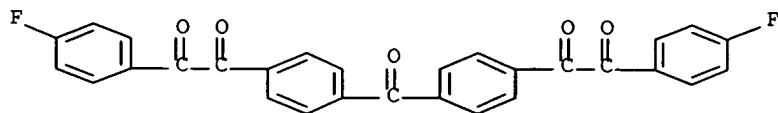
IT Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyketone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyketone-polysulfone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polyketone-polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

IT Polyquinoxalines
Polyquinoxalines
Polyquinoxalines

- RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polysulfone-, fluorine-containing; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
- IT Polyquinoxalines
Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines, polysulfone-; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
- IT Polyquinoxalines
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(polyphenylquinoxalines; preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
- IT 194936-28-2 194936-31-7
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(monomer; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
- IT 201336-92-7P 201336-93-8P 201336-94-9P
201336-95-0P 201336-96-1P 201336-97-2P 201336-98-3P
201336-99-4P 201490-67-7P 201490-68-8P 201490-69-9P 201490-70-2P
201490-71-3P 201490-72-4P 201490-73-5P 201490-77-9P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and characterization of poly(4-fluorophenylquinoxaline)s)
- IT 72383-21-2P 72412-83-0P 188577-22-2P
188577-31-3P 188577-36-8P 188652-39-3P 188652-40-6P
188652-41-7P 201337-00-0P 201337-01-1P 201337-02-2P 201337-03-3P
201490-74-6P 201490-75-7P 201490-76-8P 201490-78-0P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)
- IT 194936-18-0 194936-20-4
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(reactant in monomer synthesis; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
- IT 194936-28-2
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(monomer; preparation and characterization of poly(4-fluorophenylquinoxaline)s)
- RN 194936-28-2 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)- (9CI)
(CA INDEX NAME)



- IT 201336-92-7P 201336-93-8P 201336-94-9P
201336-95-0P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(preparation and characterization of poly(4-fluorophenylquinoxaline)s)

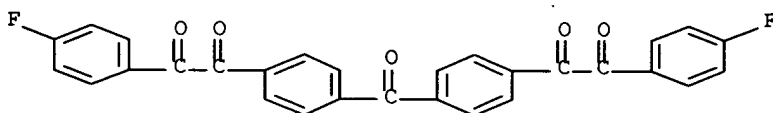
RN 201336-92-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-,
polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

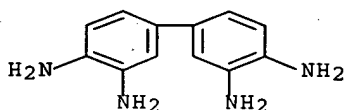
CMF C29 H16 F2 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



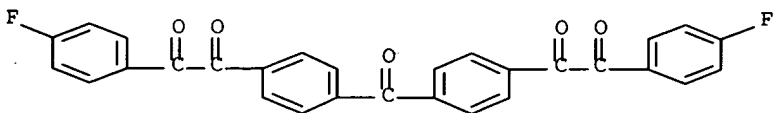
RN 201336-93-8 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-,
polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

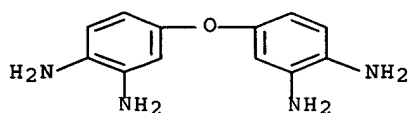
CMF C29 H16 F2 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



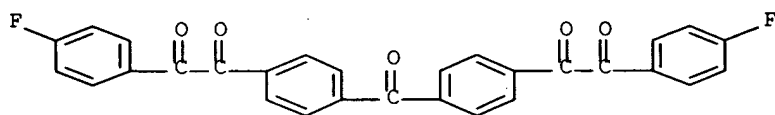
RN 201336-94-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-methylenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

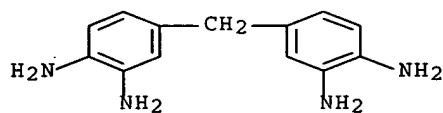
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CM 2

CRN 1779-05-1

CMF C13 H16 N4



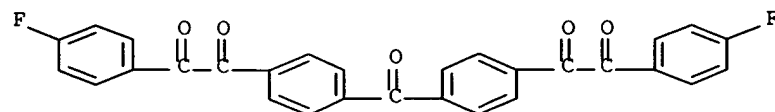
RN 201336-95-0 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

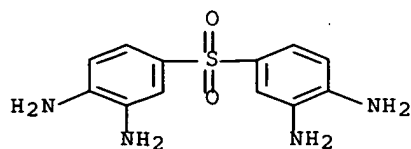
CMF C29 H16 F2 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



IT 72383-21-2P 188577-22-2P 188577-31-3P
188577-36-8P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation and characterization of poly(4-fluorophenylquinoxaline)s in comparison with fluorine-free polyphenylquinoxalines)

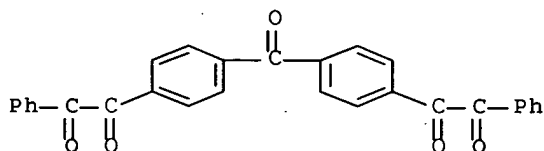
RN 72383-21-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

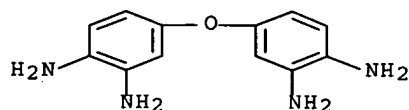
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



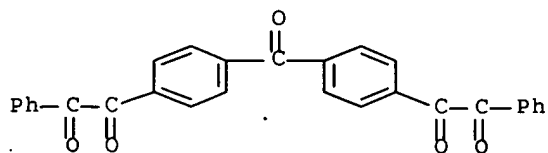
RN 188577-22-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

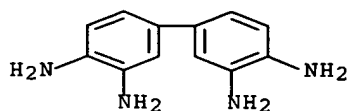
CMF C29 H18 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



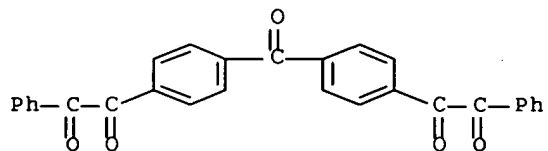
RN 188577-31-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

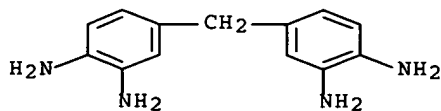
CMF C29 H18 O5



CM 2

CRN 1779-05-1

CMF C13 H16 N4



RN 188577-36-8 HCAPLUS

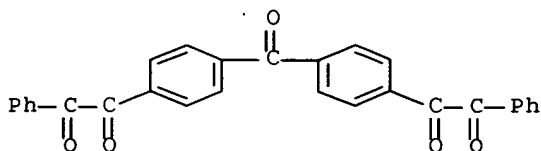
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

Kathleen Fuller EIC1700 571-272-2505

CRN 31224-78-9

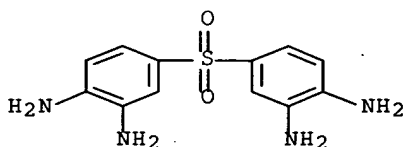
CMF C29 H18 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



L63 ANSWER 12 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:777402 HCAPLUS Full-text

DOCUMENT NUMBER: 128:75754

TITLE: New aromatic polyethers bearing α -diketone groups

AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Keshtova, S. V.; Belomoina, N. M.; Shchegolikhin, A. N.; Mikitaev, A. K.; Askadskii, A. A.

CORPORATE SOURCE: Nesmeyanov Institute of Organoelement Compounds, Russian Academy of Sciences, Moscow, 117813, Russia

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1997), 39(9), 1539-1542

CODEN: VSSBEE; ISSN: 1023-3091

PUBLISHER: MAIK Nauka

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB New aromatic polyethers bearing α -diketone groups in the backbone chains were prepared by the reactions of new difluoroarom. compds. containing these groups with various bisphenolates under the conditions of aromatic nucleophilic polysubstitution. It was shown that highly viscous polymers are obtained when polycondensation is carried out in a medium of sulfolane.

CC 35-5 (Chemistry of Synthetic High Polymers)

ST arom polydiketone polyether cardo prepn property; tensile strength arom polyether polydiketone; thermal stability arom polyether polydiketone; glass transition arom polyether polydiketone

IT Glass transition

Tensile strength

Thermal stability

(of aromatic polyethers bearing α -diketone groups)

IT Polyethers, preparation

Kathleen Fuller EIC1700 571-272-2505

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polydiketone-, aromatic, cardo-; preparation of aromatic polyethers
bearing
 α -diketone groups)

IT Polyketones
Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polydiketones, polyether-, aromatic, cardo-; preparation of aromatic
polyethers
 bearing α -diketone groups)

IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aromatic, cardo, -polydiketone-; preparation of aromatic
polyethers
 bearing α -diketone groups)

IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, aromatic; preparation of aromatic polyethers bearing α -
diketone
 groups)

IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-, cardo, aromatic, -polydiketone-; preparation of aromatic
polyethers
 bearing α -diketone groups)

IT Cardo polymers
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyether-polyketones, aromatic, -polydiketone-; preparation of aromatic
polyethers bearing α -diketone groups)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, aromatic, cardo, -polydiketone-; preparation of aromatic
polyethers
 bearing α -diketone groups)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, aromatic; preparation of aromatic polyethers bearing
 α -diketone groups)

IT Polyethers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyketone-, cardo, aromatic, -polydiketone-; preparation of aromatic
polyethers
 bearing α -diketone groups)

IT 584-08-7, Potassium carbonate
RL: CAT (Catalyst use); USES (Uses)
(preparation of aromatic polyethers bearing α -diketone groups)

IT 200485-28-5P 200485-29-6P 200485-30-9P
200485-31-0P 200485-32-1P 200485-33-2P 200485-34-3P
200485-35-4P 200485-36-5P 200485-37-6P 200485-38-7P 200485-39-8P
200485-40-1P 200485-41-2P 200485-42-3P 200485-43-4P
200485-44-5P 200485-45-6P 200485-46-7P 200485-47-8P
200485-48-9P 200485-49-0P 200485-50-3P 200485-51-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of aromatic polyethers bearing α -diketone groups)

IT 200485-28-5P 200485-29-6P 200485-30-9P
200485-31-0P 200485-40-1P 200485-41-2P
200485-46-7P 200485-47-8P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of aromatic polyethers bearing α -diketone groups)

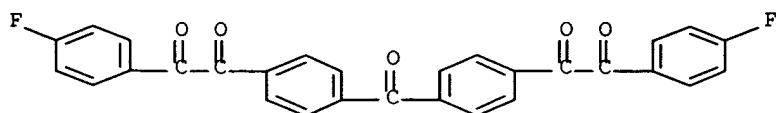
RN 200485-28-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

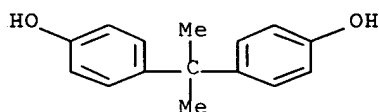
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CM 2

CRN 80-05-7

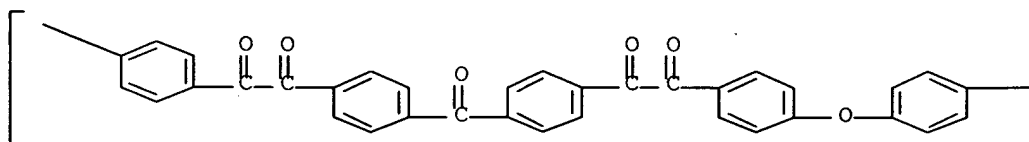
CMF C15 H16 O2



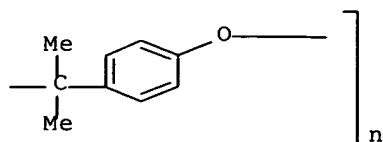
RN 200485-29-6 HCAPLUS

CN Poly[oxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



RN 200485-30-9 HCAPLUS

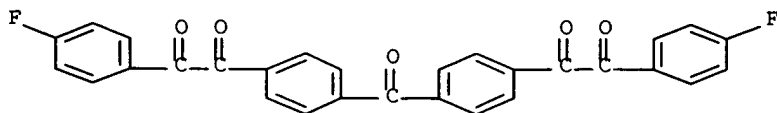
Kathleen Fuller EIC1700 571-272-2505

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-,
polymer with 4,4'-(9H-fluoren-9-ylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

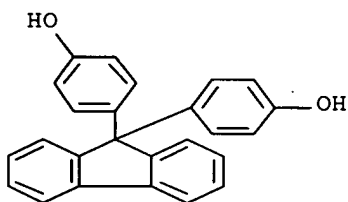
CMF C29 H16 F2 O5



CM 2

CRN 3236-71-3

CMF C25 H18 O2



RN 200485-31-0 HCAPLUS

CN Poly[oxy-1,4-phenylene-9H-fluoren-9-ylidene-1,4-phenyleneoxy-1,4-
phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-
phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

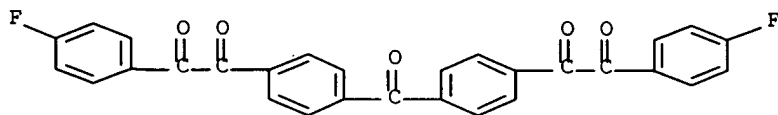
RN 200485-40-1 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-,
polymer with 3,3-bis(4-hydroxyphenyl)-1(3H)-isobenzofuranone (9CI) (CA
INDEX NAME)

CM 1

CRN 194936-28-2

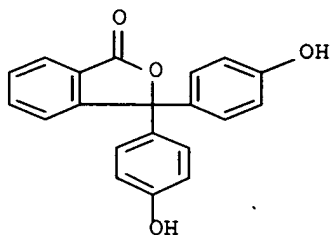
CMF C29 H16 F2 O5



CM 2

CRN 77-09-8

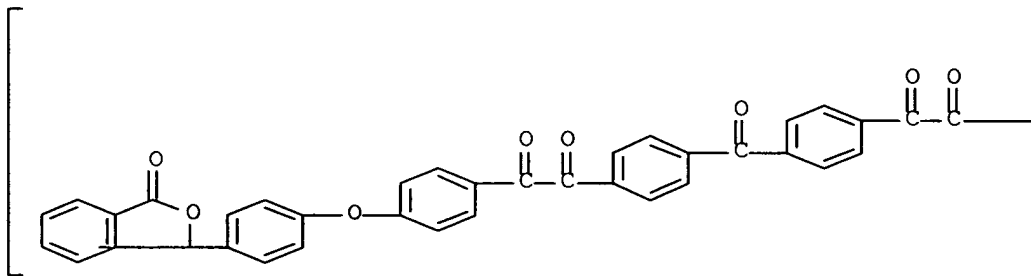
CMF C20 H14 O4



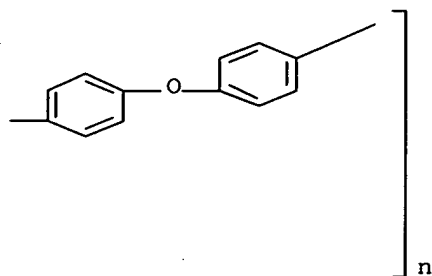
RN 200485-41-2 HCAPLUS

CN Poly[(3-oxo-1(3H)-isobenzofuranylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenyleneoxy-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



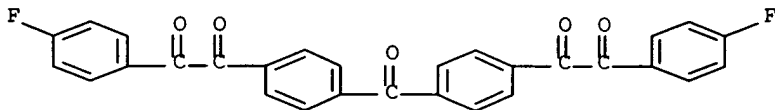
RN 200485-46-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)-, polymer with 4,4'-(1-phenylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

CM 1

CRN 194936-28-2

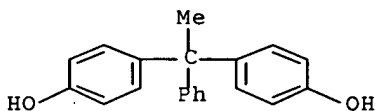
CMF C29 H16 F2 O5



CM 2

CRN 1571-75-1

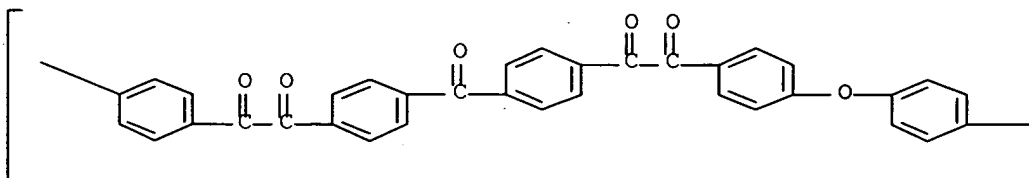
CMF C20 H18 O2



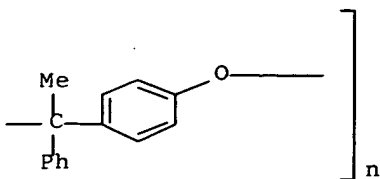
RN 200485-47-8 HCAPLUS

CN Poly[oxy-1,4-phenylene(1-phenylethylidene)-1,4-phenyleneoxy-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylenecarbonyl-1,4-phenylene(1,2-dioxo-1,2-ethanediyl)-1,4-phenylene] (9CI) (CA INDEX NAME)

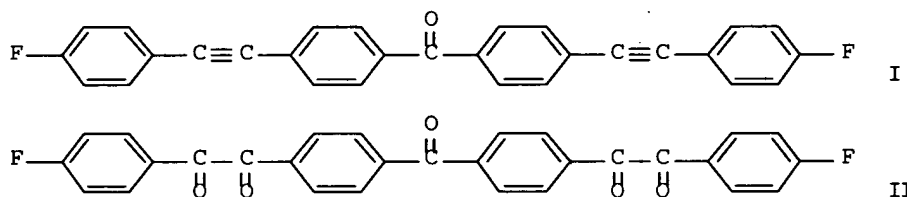
PAGE 1-A



PAGE 1-B

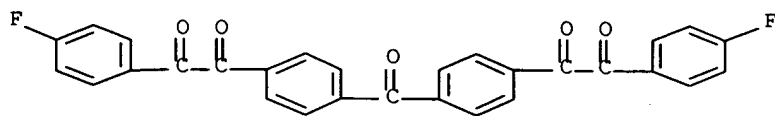


L63 ANSWER 13 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:525292 HCAPLUS Full-text
DOCUMENT NUMBER: 127:220437
TITLE: New activated bisfluoroaromatic compounds
AUTHOR(S): Rusanov, A. L.; Keshtov, M. L.; Belomoina, N. M.;
Mikitaev, A. K.; Sarkisyan, G. B.; Keshtova, S. V.
CORPORATE SOURCE: A. N. Nesmeyanov Institute of Organoelement Compounds,
Russian Academy of Sciences, Moscow, 117813, Russia
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya
Akademii Nauk, Seriya Khimicheskaya) (1997), 46(4),
777-779
CODEN: RCBUEY; ISSN: 1066-5285
PUBLISHER: Consultants Bureau
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



- AB Bis(p-fluorophenylethynyl) derivs. were obtained by the reaction of bisbromoarom. compds. with p-fluorophenylacetylene in the presence of a Pd catalyst. Subsequent oxidation of these products using an I2-DMSO system led to new bis(p-fluorophenylglyoxalyl)ketones, α -diketones, and heterocyclic compds. For example, the coupling of (4-fluorophenyl)acetylene with 4,4'-dibromobenzophenone gave ketone I. Further oxidation of I gave the bisglyoxal II.
- CC 25-20 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
- ST bisfluoroarom compd prepn
- IT 766-98-3, (4-Fluorophenyl)acetylene 3988-03-2, 4,4'-Dibromobenzophenone
19802-70-1 35578-47-3, 1,2-Bis(4-bromophenyl)-1,2-ethanedione
36741-17-0 101579-12-8 186406-38-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of bisfluoroarom. compds.)
- IT 194936-18-0P 194936-19-1P 194936-20-4P 194936-23-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of bisfluoroarom. compds.)
- IT 194936-22-6P 194936-26-0P 194936-28-2P 194936-30-6P
194936-31-7P 194936-32-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of bisfluoroarom. compds.)
- IT 194936-28-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of bisfluoroarom. compds.)
- RN 194936-28-2 HCAPLUS
- CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-fluorophenyl)- (9CI)]

(CA INDEX NAME)



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 14 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:151648 HCAPLUS Full-text

DOCUMENT NUMBER: 126:251511

TITLE: Synthesis and investigation of new poly(arylquinoxaline)s

AUTHOR(S): Rusanov, A. I.; Keshtov, M. L.; Belomoina, N. M.; Budylna, O. N.; Mikitaev, A. K.; Mercer, F.

CORPORATE SOURCE: Nesmeyanov Inst. Org. Compd., Russ. Acad. Sci., Moscow, 117813, Russia

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A i Seriya B (1996), 38(11), 1797-1802
CODEN: VSSBEE

PUBLISHER: MAIK Nauka

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB New 4,4'-bis(arylglyoxaloyl)benzophenones were prepared on the basis of 4,4'-diiodobenzophenone-a derivative of chloral. The reaction between 4,4'-bis(arylglyoxaloyl)benzophenones and aromatic bis(o-phenylenediamine)s leads to poly(arylquinoxaline)s containing Ph, di-Ph, di-Ph ether, di-Ph thioether, and benzophenone side groups. The resulting polymers combine enhanced solubility and high thermal characteristics. The films were prepared and their mech. and dielec. properties were studied.

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 36, 37

ST glyoxalyl aryl benzophenone prepolymer tetraamine; polyarylquinoxaline synthesis arylglyoxalylbenzophenone polymer aryltetraamine; dielectric property polyarylquinoxaline polyketone film; thermal stability polyarylquinoxaline polyketone polysulfone film; tensile strength polyarylquinoxaline polyketone polyether film

IT Dielectric constant

(at 0% humidity; of poly(arylquinoxaline) films)

IT Tensile strength

Thermal stability

Yield strength

(of poly(arylquinoxaline) films)

IT Polyquinoxalines

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyether-, -polyketone; preparation and mech. and dielec. properties of poly(arylquinoxalines) with improved solubility and high thermal stability)

IT Polyquinoxalines

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyketone-, preparation and mech. and dielec. properties of

poly(arylquinoxalines) with improved solubility and high thermal stability)

IT Polyethers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(polyquinoxaline-, -polyketone; preparation and mech. and dielec.

properties

Kathleen Fuller EIC1700 571-272-2505

- of poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT Polysulfones, preparation
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-, polyketone-, preparation and mech. and dielec. properties
of poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT Polyketones
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polyquinoxaline-, preparation and mech. and dielec. properties of
poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT Polyquinoxalines
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polysulfone-, polyketone-, preparation and mech. and dielec. properties of
poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT 536-74-3, Phenylacetylene 4200-06-0, 4-(Phenoxy)phenylacetylene
5630-56-8, 4,4'-Diiodobenzophenone 29079-00-3, (1,1'-Biphenyl-4-
yl)acetylene 97418-73-0, 4-(Phenylthio)phenylacetylene 119754-17-5,
4-(Benzoyl)phenylacetylene
RL: RCT (Reactant); RACT (Reactant or reagent)
(monomer synthesis; preparation and mech. and dielec. properties of
poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT 49674-70-6P, 4,4'-Bis(phenylethynyl)benzophenone 182196-68-5P,
4,4'-Bis[2-[p-(phenylthio)phenyl]ethynyl]benzophenone 182196-69-6P
182196-70-9P 182196-72-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(monomer synthesis; preparation and mech. and dielec. properties of
poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT 31224-78-9P, 4,4'-Bis(phenylglyoxalyl)benzophenone
182196-74-3P, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone
182196-75-4P, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone
182196-76-5P, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone
182196-78-7P, 4,4'-Bis[4-(1,1'-biphenyl)glyoxalyl]benzophenone
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(monomer; preparation and mech. and dielec. properties of
poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT 13965-03-2, Bis(triphenylphosphine)palladium dichloride
RL: CAT (Catalyst use); USES (Uses)
(polymerization catalyst; preparation and mech. and dielec. properties of
poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT 603-35-0, Triphenylphosphine, uses 7681-65-4, Cuprous iodide
RL: CAT (Catalyst use); USES (Uses)
(polymerization cocatalyst; preparation and mech. and dielec. properties of
poly(arylquinoxalines) with improved solubility and high thermal stability)
- IT 121-44-8, uses
RL: CAT (Catalyst use); USES (Uses)
(preparation and mech. and dielec. properties of poly(arylquinoxalines)
with
improved solubility and high thermal stability)
- IT 188577-31-3P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and mech. and dielec. properties of poly(arylquinoxalines)
with
improved solubility and high thermal stability)
- IT 72383-21-2P, Bis(3,4-diaminophenyl) ether-4,4'-
Bis(phenylglyoxalyl)benzophenone copolymer 72412-83-0P

188577-22-2P, 4,4'-Bis(phenylglyoxalyl)benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer 188577-23-3P, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer 188577-24-4P, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer 188577-25-5P, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer 188577-26-6P, 4,4'-Bis[4-(1,1'-biphenyl)glyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer 188577-27-7P, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone copolymer 188577-28-8P, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone copolymer 188577-29-9P, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone copolymer 188577-30-2P 188577-31-3DP, oxidized 188577-32-4P 188577-33-5P 188577-34-6P 188577-35-7P 188577-36-8P 188577-37-9P 188577-38-0P 188577-39-1P 188577-40-4P 188652-39-3P, 4,4'-Bis(phenylglyoxalyl)benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-40-6P 188652-41-7DP, oxidized 188652-41-7P 188652-42-8P, 4,4'-Bis[4-(1,1'-biphenyl)glyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-43-9P, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-44-0P 188652-45-1P 188652-46-2P, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-47-3P 188652-48-4P 188652-49-5P 188652-50-8P 188652-51-9P 188652-52-0P 188652-53-1P 188652-54-2P, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer, sru 188652-55-3P 188652-56-4P 188652-57-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and mech. and dielec. properties of poly(arylquinoxalines))

with

improved solubility and high thermal stability)

IT 68-12-2, uses

RL: NUU (Other use, unclassified); USES (Uses)

(solvent for polymerization; preparation and mech. and dielec. properties

of

poly(arylquinoxalines) with improved solubility and high thermal stability)

IT 31224-78-9P, 4,4'-Bis(phenylglyoxalyl)benzophenone

182196-74-3P, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone

182196-75-4P, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone

182196-76-5P, 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone

182196-78-7P, 4,4'-Bis[4-(1,1'-biphenyl)glyoxalyl]benzophenone

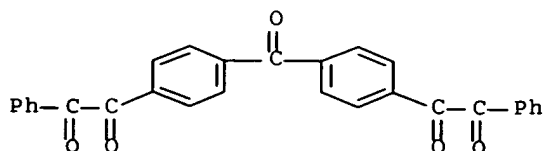
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(monomer; preparation and mech. and dielec. properties of

poly(arylquinoxalines) with improved solubility and high thermal stability)

RN 31224-78-9 HCAPLUS

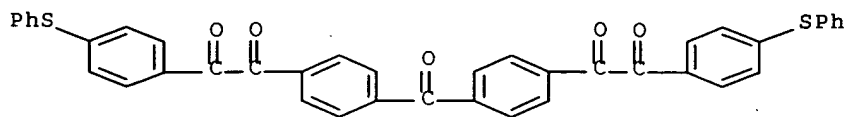
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



RN 182196-74-3 HCAPLUS

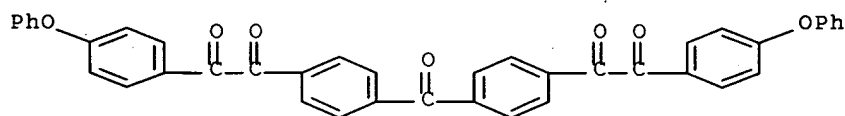
Kathleen Fuller EIC1700 571-272-2505

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-
(CA INDEX NAME)



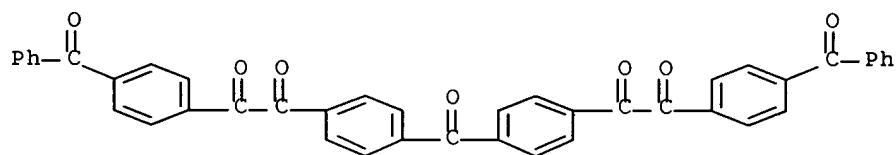
RN 182196-75-4 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)- (9CI)
(CA INDEX NAME)



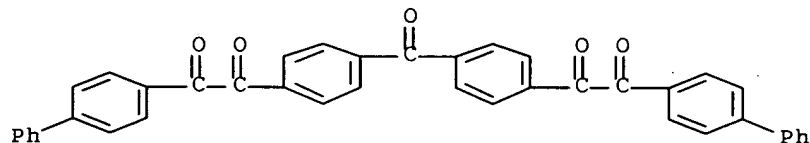
RN 182196-76-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)- (9CI)
(CA INDEX NAME)



RN 182196-78-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-
(9CI) (CA INDEX NAME)



IT 188577-31-3P

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP
(Preparation); RACT (Reactant or reagent)
(preparation and mech. and dielec. properties of poly(arylquinoxalines)

with

improved solubility and high thermal stability)

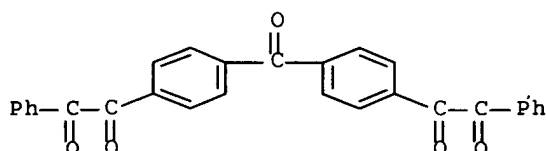
RN 188577-31-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with
4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

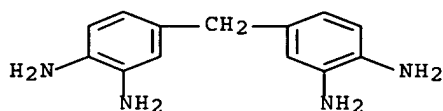
CMF C29 H18 O5



CM 2

CRN 1779-05-1

CMF C13 H16 N4



IT 72383-21-2P, Bis(3,4-diaminophenyl) ether-4,4'-
 Bis(phenylglyoxalyl)benzophenone copolymer 188577-22-2P,
 4,4'-Bis(phenylglyoxalyl)benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl
 copolymer 188577-23-3P, 4,4'-Bis[4-(phenylthio)phenylglyoxalyl]b
 enzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl copolymer
 188577-24-4P, 4,4'-Bis[4-(phenoxy)phenylglyoxalyl]benzophenone-
 3,3',4,4'-tetraamino-1,1'-biphenyl copolymer 188577-25-5P,
 4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-
 biphenyl copolymer 188577-26-6P, 4,4'-Bis[4-(1,1'-
 biphenyl)glyoxalyl]benzophenone-3,3',4,4'-tetraamino-1,1'-biphenyl
 copolymer 188577-27-7P, Bis(3,4-diaminophenyl)
 ether-4,4'-Bis[4-(phenylthio)phenylglyoxalyl]benzophenone copolymer
 188577-28-8P, Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-
 (phenoxy)phenylglyoxalyl]benzophenone copolymer 188577-29-9P,
 Bis(3,4-diaminophenyl) ether-4,4'-Bis[4-(benzoyl)phenylglyoxalyl]benzophen
 one copolymer 188577-30-2P 188577-31-3DP, oxidized
 188577-32-4P 188577-33-5P 188577-34-6P
 188577-35-7P 188577-36-8P 188577-37-9P
 188577-38-0P 188577-39-1P 188577-40-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (preparation and mech. and dielec. properties of poly(arylquinoxalines)

with

improved solubility and high thermal stability)

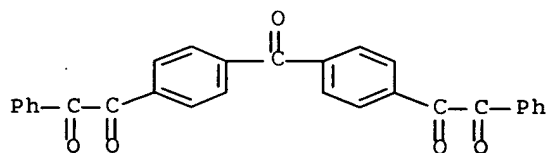
RN 72383-21-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with
 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

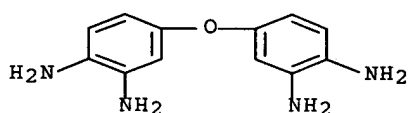
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



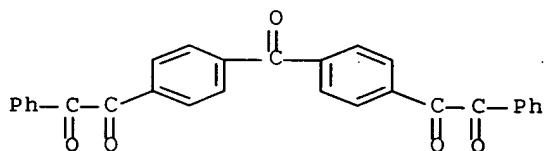
RN 188577-22-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

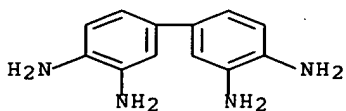
CMF C29 H18 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



RN 188577-23-3 HCAPLUS

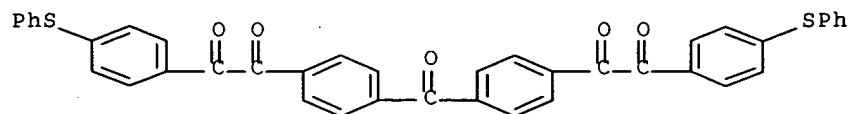
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

Kathleen Fuller EIC1700 571-272-2505

CM 1

CRN 182196-74-3

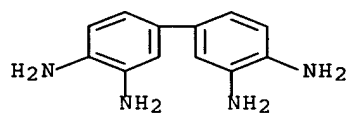
CMF C41 H26 O5 S2



CM 2

CRN 91-95-2

CMF C12 H14 N4



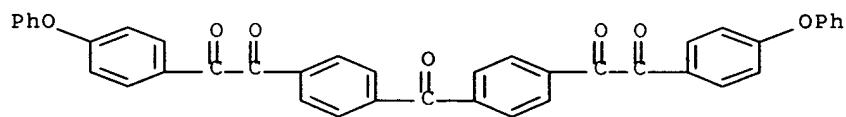
RN 188577-24-4 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 182196-75-4

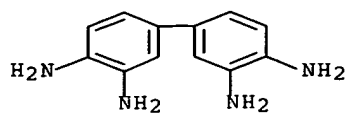
CMF C41 H26 O7



CM 2

CRN 91-95-2

CMF C12 H14 N4



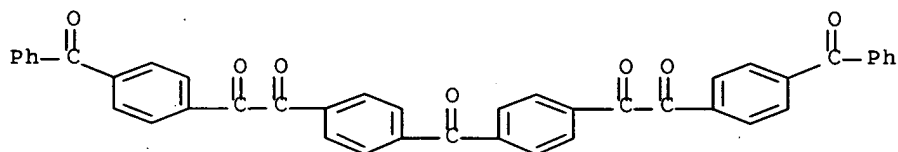
RN 188577-25-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)-,
polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 182196-76-5

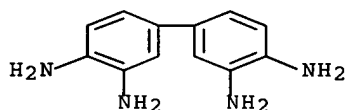
CMF C43 H26 O7



CM 2

CRN 91-95-2

CMF C12 H14 N4



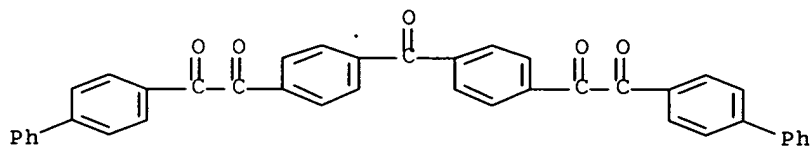
RN 188577-26-6 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl]-,
polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 182196-78-7

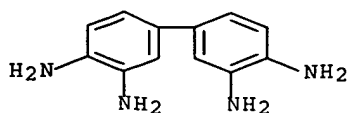
CMF C41 H26 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



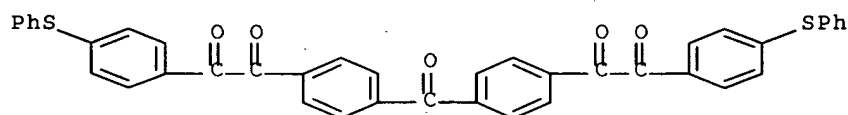
RN 188577-27-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-74-3

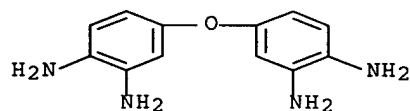
CMF C41 H26 O5 S2



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



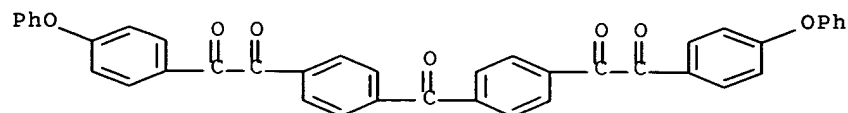
RN 188577-28-8 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-75-4

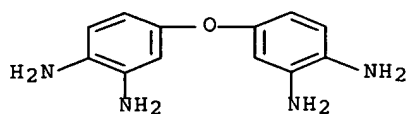
CMF C41 H26 O7



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



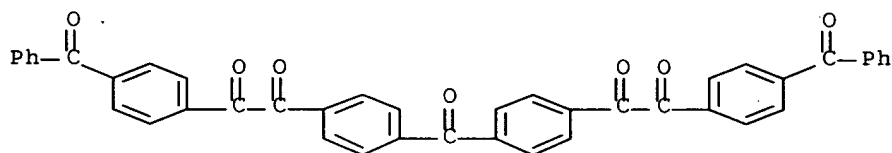
RN 188577-29-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-76-5

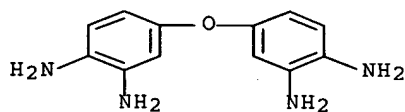
CMF C43 H26 O7



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



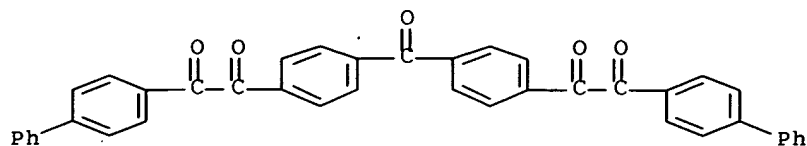
RN 188577-30-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-78-7

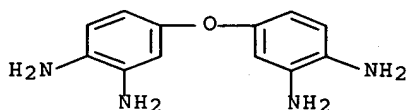
CMF C41 H26 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



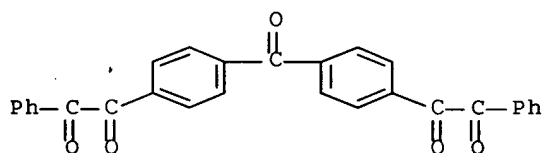
RN 188577-31-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM .1

CRN 31224-78-9

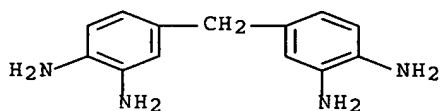
CMF C29 H18 O5



CM 2

CRN 1779-05-1

CMF C13 H16 N4



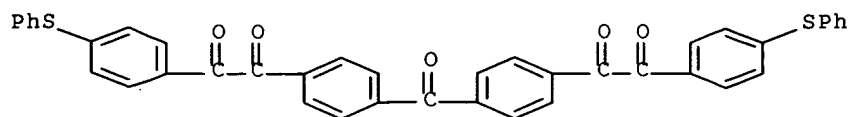
RN 188577-32-4 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-, polymer with 4,4'-methylenebis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-74-3

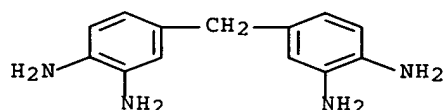
CMF C41 H26 O5 S2



CM 2

CRN 1779-05-1

CMF C13 H16 N4



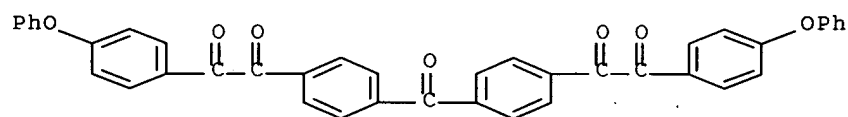
RN 188577-33-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)-, polymer with 4,4'-methylenedibenzene-1,2-diamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-75-4

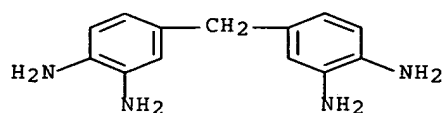
CMF C41 H26 O7



CM 2

CRN 1779-05-1

CMF C13 H16 N4



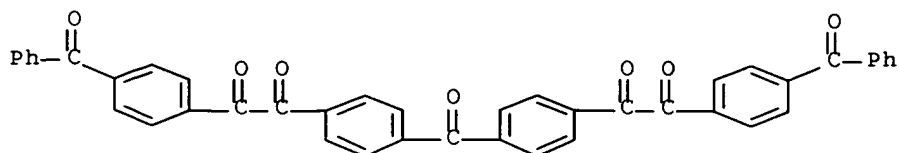
RN 188577-34-6 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)-, polymer with 4,4'-methylenedibenzene-1,2-diamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-76-5

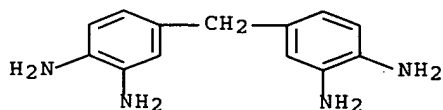
CMF C43 H26 O7



CM 2

CRN 1779-05-1

CMF C13 H16 N4



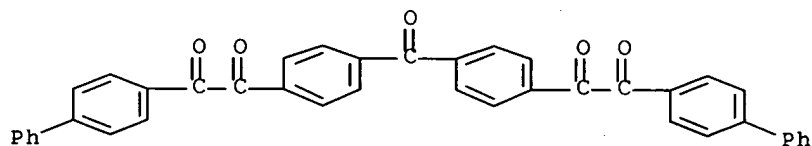
RN 188577-35-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-, polymer with 4,4'-methylenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-78-7

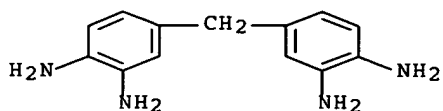
CMF C41 H26 O5



CM 2

CRN 1779-05-1

CMF C13 H16 N4



RN 188577-36-8 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with

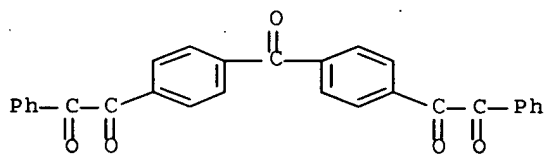
Kathleen Fuller EIC1700 571-272-2505

4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

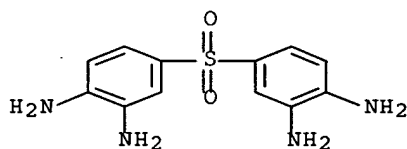
CMF C29 H18 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



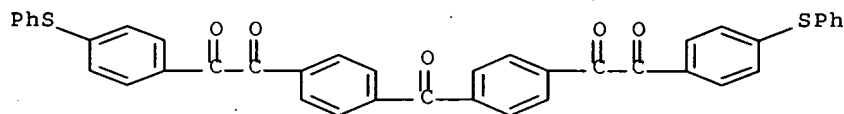
RN 188577-37-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-74-3

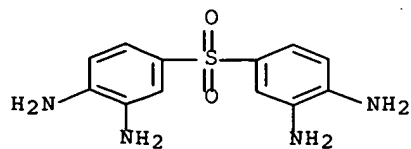
CMF C41 H26 O5 S2



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



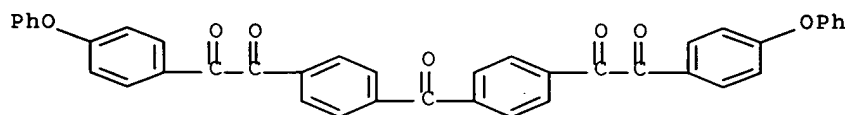
RN 188577-38-0 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-75-4

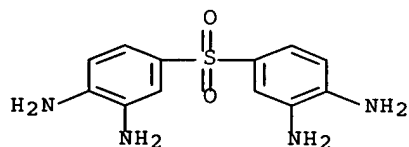
CMF C41 H26 O7



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



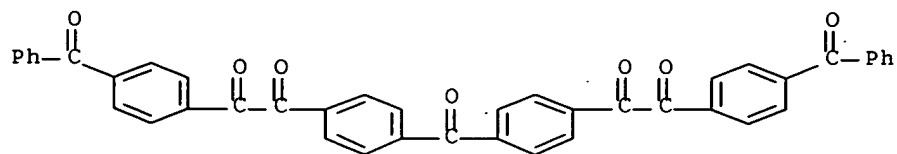
RN 188577-39-1 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-76-5

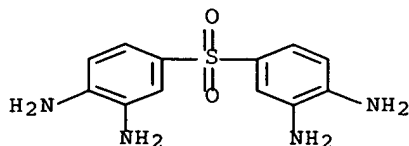
CMF C43 H26 O7



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



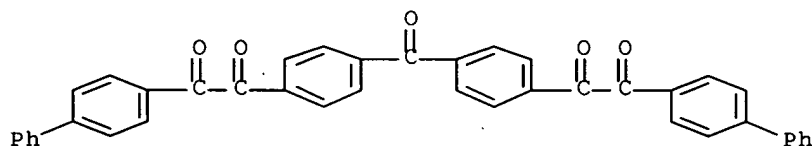
RN 188577-40-4 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 182196-78-7

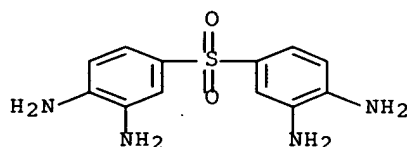
CMF C41 H26 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



L63 ANSWER 15 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:400962 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 125:275348

TITLE: Synthesis of new 4,4'-bis(arylethynyl)benzophenones and 4,4'-bis(arylglyoxalyl)benzophenones based on chloral

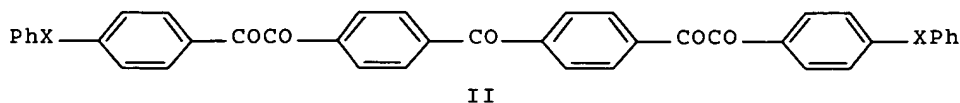
AUTHOR(S): Keshtov, M. L.; Belomoina, N. M.; Kazieva, T. M.; Rusanova, A. L.; Mikitaev, A. K.

CORPORATE SOURCE: Nesmeyanov, A. N., Institut Elementoorganicheskikh Soedinenii, Moscow, 117813, Russia

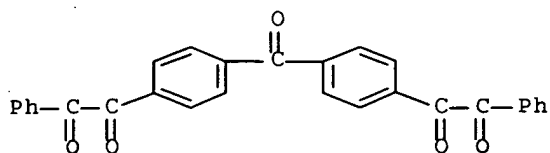
SOURCE: Izvestiya Akademii Nauk, Seriya Khimicheskaya (1996),

Kathleen Fuller EIC1700 571-272-2505

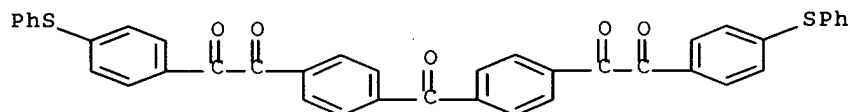
(3), 670-672
CODEN: IASKEA
PUBLISHER: Institut Organicheskoi Khimii im. N. D. Zelinskogo
Rossiiskoi Akademii Nauk
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 125:275348
GI



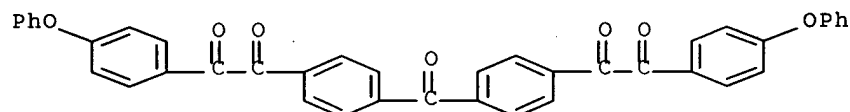
- AB 4,4'-Diodobenzophenone (I) was obtained by a 3-step synthesis from chloral and iodobenzene. Cross-coupling of I with terminal arylethyne using a Pd complex catalyst led to 4,4'-bis(arylethynyl)benzophenones. Oxidation of these products with an I₂/DMSO system gave 4,4'-bis(arylglyoxalyl)benzophenones, e.g., II (X = O, S, CO, a bond).
- CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
- ST chloral reaction iodobenzene; benzophenone arylethynyl arylglyoxalyl prepn; coupling diiodobenzophenone arylethyne
- IT Oxidation
(of bis(arylethynyl)benzophenones by iodine/DMSO)
- IT Coupling reaction
(cross-, of arylethyne with diiodobenzophenones)
- IT 3972-13-2P, Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-iodo-
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydrochlorination of)
- IT 49674-70-6P 182196-68-5P 182196-69-6P 182196-70-9P 182196-72-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and oxidation of)
- IT 31224-78-9P 182196-74-3P 182196-75-4P
182196-76-5P 182196-78-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
- IT 591-50-4, Iodobenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with chloral)
- IT 75-87-6, Chloral
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with iodobenzene)
- IT 31224-78-9P 182196-74-3P 182196-75-4P
182196-76-5P 182196-78-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
- RN 31224-78-9 HCAPLUS
- CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



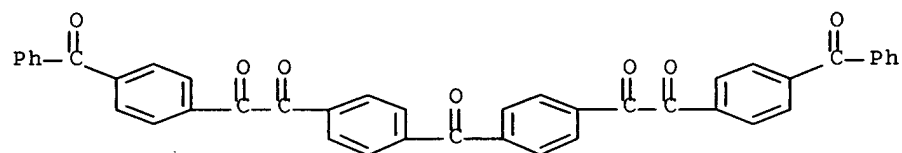
RN 182196-74-3 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[4-(phenylthio)phenyl]-
(CA INDEX NAME)

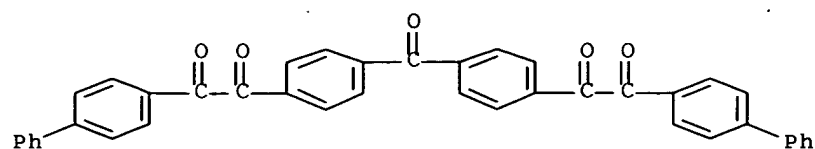
RN 182196-75-4 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-phenoxyphenyl)- (9CI)
(CA INDEX NAME)

RN 182196-76-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-(4-benzoylphenyl)- (9CI)
(CA INDEX NAME)

RN 182196-78-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-[1,1'-biphenyl]-4-yl-
(9CI) (CA INDEX NAME)

L63 ANSWER 16 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:335631 HCAPLUS Full-text

DOCUMENT NUMBER: 125:114254

TITLE: Use of new reagents based on DMSO in oxidation of double and triple bonds and synthesis of 1,2-diketones

AUTHOR(S): Yusubov, M. S.; Chi, Ki Whan; Krasnokutskaya, E. A.; Vasil'eva, V. P.; Filimonov, V. D.

CORPORATE SOURCE: Tomsk. Politekh. Univ., Tomsk, Russia

SOURCE: Zhurnal Organicheskoi Khimii (1995), 31(11), 1675-1678
CODEN: ZORKAE; ISSN: 0514-7492

PUBLISHER: Nauka

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 125:114254

AB Diarylethenes and -ethynes were oxidized to diketones by I₂-DMSO and PdCl₂-DMSO systems. The I₂-DMSO system was more active than the PdCl₂-DMSO system in the oxidation of double bonds. The PdCl₂-DMSO system was more selective in the oxidation of triple bonds but was more sensitive to steric effects in the substrate.

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

ST oxidn diarylethene diarylethyne DMSO system; diarylethene oxidn DMSO iodine palladium dichloride; diarylethyne oxidn DMSO iodine palladium dichloride; DMSO iodine palladium dichloride oxidizing agent; diketone diaryl prepn; iodine DMSO oxidn diarylethene diarylethyne; palladium dichloride DMSO oxidn diarylethene diarylethyne

IT Oxidizing agents

(based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

IT Alkenes, reactions

Alkynes

RL: RCT (Reactant); RACT (Reactant or reagent)

(reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

IT Ketones, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)

(di-, reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

IT 67-68-5, DmsO, reactions 501-65-5, Tolan 588-59-0, Stilbene 673-32-5, 1-Phenylpropyne 1142-15-0, 4-Methoxystilbene 1820-42-4, Bis(4-chlorophenyl)acetylene 1849-26-9, Phenol, 4-(phenylethynyl)- 1849-27-0, Benzene, 1,4-bis(phenylethynyl)- 1942-30-9, Benzene, 1-nitro-4-(phenylethynyl)- 2132-62-9, Di-p-anisylacetylene 2789-88-0, Di-p-tolylacetylene 3287-02-3, 4-Methyltolan 4714-21-0, 4-Methylstilbene 4714-23-2, 4-Chlorostilbene 5172-02-1, Benzene, 1-chloro-4-(phenylethynyl)- 7380-78-1, Benzene, 1-methoxy-4-(phenylethynyl)- 7553-56-2, Diiodine, reactions 7647-10-1, Palladium dichloride 29778-31-2, Mesitylphenylacetylene 49674-69-3 49674-70-6 53304-20-4 53304-21-5, 1,1'-Biphenyl, 4,4'-bis(phenylethynyl)- 55718-44-0 57341-98-7, Benzaldehyde, 4-(phenylethynyl)- 59745-29-8 162853-61-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

IT 134-81-6P, Benzil 579-07-7P, 1,2-Propanedione, 1-phenyl- 1226-42-2P, Ethanedione, bis(4-methoxyphenyl)- 2431-00-7P, 4-Methylbenzil 3363-97-1P 3457-46-3P, Ethanedione, bis(4-chlorophenyl)- 3457-48-5P, Ethanedione, bis(4-methylphenyl)- 18189-21-4P 21454-19-3P 22711-21-3P, 4-Methoxybenzil 22711-23-5P, 4-Chlorobenzil 22711-24-6P, 4-Nitrobenzil 25056-07-9P, Ethanedione, phenyl(2,4,6-trimethylphenyl)- 31224-78-9P 38469-73-7P, 4-Hydroxybenzil 47709-64-8P

47732-44-5P 50559-10-9P 162853-60-3P 179049-25-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

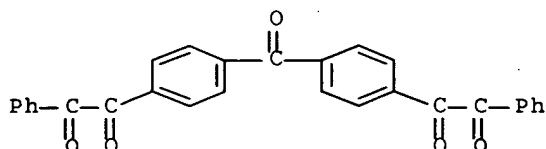
IT 31224-78-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(reagents based on DMSO in oxidation of double and triple bonds to 1,2-diketones)

RN 31224-78-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 17 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:411184 HCAPLUS Full-text

DOCUMENT NUMBER: 122:290404

TITLE: DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones

AUTHOR(S): Yusubov, Mehman S.; Krasnokutskaya, Elena A.; Vasilyeva, Valentina P.; Filimonov, Victor D.; Chi, Ki-Whan

CORPORATE SOURCE: Dep. Org. Chem., Tomsk Polytech. Univ., Tomsk, 634004, Russia

SOURCE: Bulletin of the Korean Chemical Society (1995), 16(2), 86-8

CODEN: BKCSDE; ISSN: 0253-2964

PUBLISHER: Korean Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 122:290404

AB I2/DMSO oxidized stilbenes or tolans to 1,2-diketones. Also, PdCl2/DMSO oxidized tolans to 1,2-diketones. Similarly, the heterogeneous catalyst Pd/C/copper(II) halide in DMSO catalyzed oxidation of alkynes to diketones.

CC 25-16 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

ST DMSO reagent oxidn alkene alkyne

IT Oxidation

(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT Alkenes, reactions

Alkynes

RL: RCT (Reactant); RACT (Reactant or reagent)

(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT Oxidation catalysts

(Pd/C/copper(II) halide-catalyzed oxidation of alkenes and alkynes in DMSO)

IT Ketones, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)

(1,2-di-, DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT 7440-05-3, Palladium, uses 7447-39-4, Cupric chloride, uses 7789-45-9, Cupric bromide

Kathleen Fuller EIC1700 571-272-2505

RL: CAT (Catalyst use); USES (Uses)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

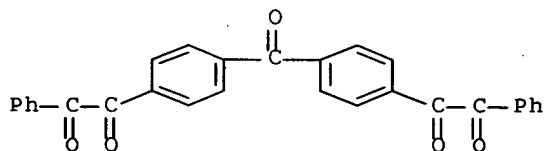
IT 67-68-5, uses 7647-10-1, Palladium chloride (PdCl₂)
RL: NUU (Other use, unclassified); USES (Uses)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT 103-30-0, trans-Stilbene 501-65-5, Diphenylacetylene 1657-50-7
1694-19-5 1820-42-4 1849-26-9 1849-27-0, 1,4-Bis(phenylethynyl)benzene 1860-17-9 1942-30-9 2132-62-9,
Bis(p-methoxyphenyl)acetylene 2789-88-0, Di-p-tolylacetylene 3287-02-3
5172-02-1 7380-78-1 29778-31-2 49674-69-3 49674-70-6 53304-20-4
53304-21-5 55718-44-0 57341-98-7 59745-29-8 162853-61-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT 134-81-6P, 1,2-Diphenyl-1,2-Ethanedione 1226-42-2P 2431-00-7P
3363-97-1P 3457-46-3P 3457-48-5P 18189-21-4P 21454-19-3P
22711-21-3P 22711-23-5P 22711-24-6P 25056-07-9P 31224-78-9P
38469-73-7P 47709-64-8P 47732-44-5P 50559-10-9P 162853-60-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

IT 31224-78-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(DMSO-based reagents for the oxidation of alkenes and alkynes to 1,2-diketones)

RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 18 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1993:39518 HCAPLUS Full-text
DOCUMENT NUMBER: 118:39518
TITLE: Synthesis of poly(phenylquinoxalines) (PPQ) with elevated glass transition temperatures
AUTHOR(S): Belomoina, N. M.; Vakhtangishvili, L. V.; Krongauz, E. S.; Rusanov, A. L.
CORPORATE SOURCE: Inst. Org.-Elem. Compd., Moscow, Russia
SOURCE: Polyimides Other High-Temp. Polym., Proc. Eur. Tech. Symp., 2nd (1991), 143-9. Editor(s): Abadie, Marc J. M.; Sillion, Bernard. Elsevier: Amsterdam, Neth.
CODEN: 57QVAJ
DOCUMENT TYPE: Conference
LANGUAGE: English
AB 1,1-Dichloro-2,2-bis(3,4-diaminophenyl)ethylene (I) and 2,3-bis(3,4-diaminophenyl)quinoxaline (II) were obtained from DDT. I and II were polycondensed with aromatic bis(α-diketones) to provide poly(phenylquinoxalines) having elevated glass temperature and solubility in organic solvents.

CC 35-5 (Chemistry of Synthetic High Polymers)
ST polyphenylquinoxaline glass temp soly
IT Glass temperature and transition
(of poly(phenylquinoxalines))
IT Polyethers, preparation
Polyketones
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-, preparation and glass temperature and solubility
of)
IT Polyquinoxalines
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxaline-polyketones, preparation and glass temperature and
solubility
of)
IT Polyquinoxalines
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, preparation and glass temperature and solubility
of)
IT Polyquinoxalines
RL: SPN (Synthetic preparation); PREP (Preparation)
(polyphenylquinoxalines, polyether-, preparation and glass temperature and
solubility
of)
IT 95-54-5, o-Phenylenediamine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with aromatic diketone)
IT 50-29-3, DDT, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(nitration or reduction of)
IT 73046-19-2P 130711-05-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and amination of)
IT 92030-44-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cyclocondensation with phenylenediamine)
IT 50-29-3P, preparation 4399-07-9P 76905-73-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and dehydrochlorination of)
IT 120704-69-0P 120704-70-3P 120704-71-4P 120704-72-5P
120704-73-6P 120704-74-7P 120796-89-6P 120796-90-9P
120796-91-0P 120796-92-1P 120796-93-2P 130341-67-2P 130341-68-3P
130341-86-5P 130390-79-3P 130390-83-9P 130390-84-0P 145394-33-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and glass temperature and solubility of)
IT 3457-46-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and nitration of)
IT 1820-42-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and oxidation of)
IT 120704-68-9P 130341-66-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and polymerization with bis(diketones))
IT 130711-06-7P 134292-37-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(preparation and reduction of)

IT 120704-73-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and glass temperature and solubility of)

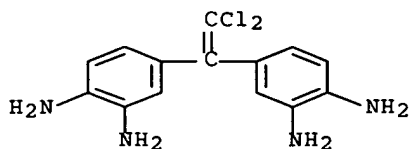
RN 120704-73-6 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-(dichloroethenylidene)bis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 120704-68-9

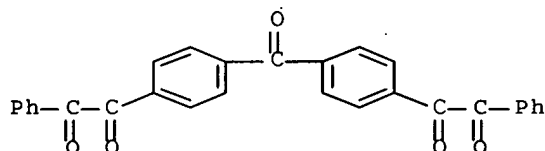
CMF C14 H14 Cl2 N4



CM 2

CRN 31224-78-9

CMF C29 H18 O5



L63 ANSWER 19 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:409425 HCAPLUS Full-text

DOCUMENT NUMBER: 117:9425

TITLE: Photopolymerization catalysts for acrylic monomers for manufacture of adhesive tapes

INVENTOR(S): Ueda, Tsunehisa; Nakasu, Yoshiaki

PATENT ASSIGNEE(S): Sekisui Chemical Co. Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

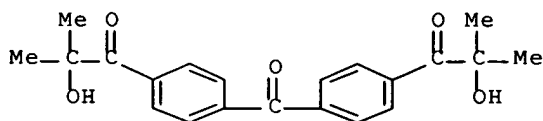
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04011610	A	19920116	JP 1990-113034	19900427
JP 06102698	B	19941214		

PRIORITY APPLN. INFO.: JP 1990-113034 19900427

AB The title catalysts are HOCR1R2COZCOR3R4OH or [Y(p-C6H4COCR5R6OH)] n, where R1-6 = linear or branched alkyl, R1-R2 or R3-R4 form rings, Z =

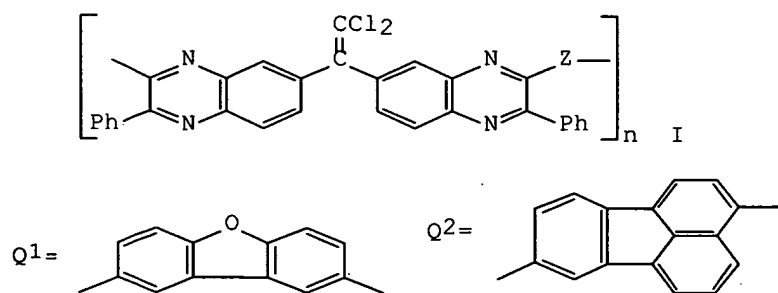
(un)substituted aromatic groups or A1TA2, A1A2 = (un)substituted aromatic groups, T = linear or branched alkylene, CO, O, or S, Y = linear or branched alkylene, n = 2-10. Thus, 100 parts 97:3 2-ethylhexyl acrylate-acrylic acid was mixed with 1 part 4,4'-bis(α -hydroxyisobutyryl)benzophenone, and a nylon fabric was impregnated with the composition and irradiated with Hg lamps to prepare a double-stick adhesive tape.

IC ICM C08F020-18
ICS C08F002-50
CC 38-3 (Plastics Fabrication and Uses)
ST ethylhexyl acrylate copolymer adhesive tape; adhesive tape manuf acrylic adhesive; hydroxyisobutyrylbenzophenone photopolymn catalyst
IT Adhesive tapes
(acrylic acid-ethylhexyl acrylate copolymers for, photopolymn. catalysts for)
IT Ketones, uses
RL: USES (Uses)
(hydroxy, aromatic, catalysts, for photopolymn. of acrylic acid and ethylhexyl acrylate)
IT Polymerization catalysts
(photochem., aromatic hydroxyketones, for acrylic monomers)
IT 25134-51-4, Acrylic acid-2-ethylhexyl acrylate copolymer 123867-27-6, Acrylic acid-2-ethylhexyl acrylate-hexanediol diacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesives, for adhesive tapes, photopolymn. catalysts for)
IT 80067-87-4, 4,4'-Bis(α -hydroxyisobutyryl)benzophenone
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for photopolymn. of acrylic acid and ethylhexyl acrylate)
IT 80067-87-4, 4,4'-Bis(α -hydroxyisobutyryl)benzophenone
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for photopolymn. of acrylic acid and ethylhexyl acrylate)
RN 80067-87-4 HCAPLUS
CN 1-Propanone, 1,1'-(carbonyldi-4,1-phenylene)bis[2-hydroxy-2-methyl- (9CI)
(CA INDEX NAME)



L63 ANSWER 20 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:213507 HCAPLUS Full-text
DOCUMENT NUMBER: 110:213507
TITLE: Synthesis and properties of chlorine-containing poly(phenylquinoxalines)
AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Rusanov, A. L.; Belomoina, N. M.; Vakhtangishvili, L. V.; Slonimskii, G. L.; Askadskii, A. A.; Bychko, K. A.; Kazantseva, V. V.; Fidler, S. Kh.
CORPORATE SOURCE: Inst. Elementoorg. Soedin. im. Nesmeyanova, Moscow, USSR
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1989), 31(1), 80-5
CODEN: VYSAAF; ISSN: 0507-5475
DOCUMENT TYPE: Journal
LANGUAGE: Russian

GI



AB Tetraamine derivs. of DDT, which has lost its importance as an insecticide, was used for polycondensation with bis(α -diketones) to give polyphenylquinoxalines (I; Z = p-C₆H₄, p-C₆H₄OC₆H₄-p, p-C₆H₄C₆H₄-p, p-C₆H₄COC₆H₄-p, Q1, Q2). The polymers had softening temperature $\geq 280^\circ$ and good solubility in organic solvents, giving films with tensile strength 61.5-84.0 MPa and breaking elongation 7-50%. During TGA testing in air, the initial 10% weight loss for the polymers occurred at 500° . The presence of the C:CCl₂ group caused some decrease in thermal stability and also resulted in a certain degree of crosslinking during molding at high temps.

CC 35-5 (Chemistry of Synthetic High Polymers)

ST polyphenylquinoxaline prepn DDT tetraamine; aminodiphenylethylidene chloride polymn bisdiketone; chloroethenylidenebischlorobenzene polymn bisdiketone

IT Crosslinking

(in thermal processing of dichloroethenylidene group-containing polyphenylquinoxalines)

IT Polyethers, preparation

Polyketones

RL: SPN (Synthetic preparation); PREP (Preparation)

(polyphenylquinoxaline-, chlorine-containing, preparation of, from tetraamine

derivs. of DDT, properties in relation to)

IT Polymers, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)

(polyphenylquinoxalines, chlorine-containing, preparation of, from tetraamine

derivs. of DDT, properties in relation to)

IT 120704-69-0P 120704-70-3P 120704-71-4P 120704-72-5P

120704-73-6P 120704-74-7P 120796-89-6P 120796-90-9P

120796-91-0P 120796-92-1P 120796-93-2P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and properties of)

IT 120704-73-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and properties of)

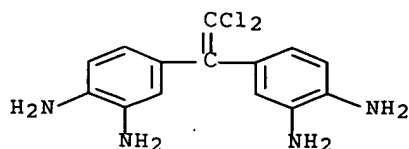
RN 120704-73-6 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-(dichloroethenylidene)bis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 120704-68-9

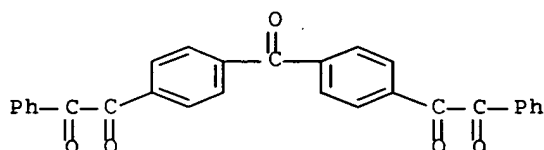
CMF C14 H14 Cl2 N4



CM 2

CRN 31224-78-9

CMF C29 H18 O5



L63 ANSWER 21 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1986:497982 HCAPLUS Full-text

DOCUMENT NUMBER: 105:97982

ORIGINAL REFERENCE NO.: 105:15863a,15866a

TITLE: Enthalpy of polycondensation of 3,3',4,4'-tetraaminodiphenyl oxide with some aromatic tetraketones

AUTHOR(S): Karyakin, N. V.; Vagina, E. N.; Korshak, V. V.; Krongauz, E. S.; Belomoina, N. M.; Babich, S. A.

CORPORATE SOURCE: Gor'k. Gos. Univ., Gorkiy, USSR

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1986), 28(3), 203-5
CODEN: VYSBAI; ISSN: 0507-5483

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB The polycondensation of 3,3',4,4'-tetraaminodiphenyl oxide [2676-59-7] with PhCOCOCOCOPh (I; Z = p-C6H4, p-C6H4C6H4-p, p-C6H4OC6H4-p, p-C6H4COC6H4-p, dibenzofurandiyl) occurred with standard enthalpy of polymerization (ΔH) -164 to -204 kJ/mol in solution and -52 to -102 kJ/mol in solid phase. Structural factors increasing the pos. charge on the carbonyl C of I led to decreased ΔH . The formation of polyphenylquinoxalines was practically irreversible and polymers with high d.p. were obtained. Solution enthalpies were pos. for I and neg. for the polymers.

CC 35-3 (Chemistry of Synthetic High Polymers)

ST tetramine polymn tetraketone enthalpy; aminodiphenyl oxide polymn tetraketone; polyphenylquinoxaline prepn polymn heat; quinoxaline polymer prepn polymn heat; soln heat tetraketone polyphenylquinoxaline

IT Heat of solution

(of poly(phenylquinoxalines) and their aromatic tetraketones)

IT Heat of polymerization

(of tetraaminodiphenyl oxide with aromatic tetraketones)

IT 91-19-0D, derivs., polymers 25656-52-4 27322-90-3 30527-17-4

Kathleen Fuller EIC1700 571-272-2505

72383-21-2

RL: PRP (Properties)
(heat of solution of)

IT 2676-59-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with aromatic tetraketones, enthalpy of)

IT 3363-97-1 21454-19-3 31224-78-9 47709-64-8 60486-35-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with tetraaminodiphenyl oxide, heat of solution and
polycondensation in relation to)

IT 72383-21-2

RL: PRP (Properties)
(heat of solution of)

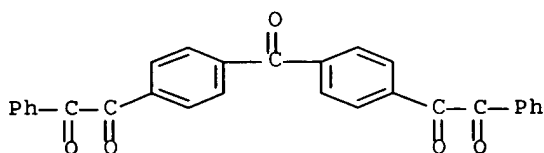
RN 72383-21-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with
4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

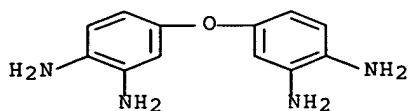
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O

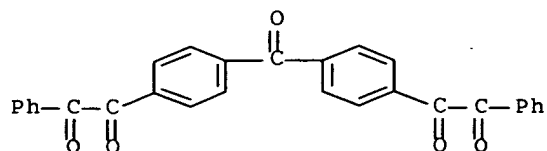


IT 31224-78-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with tetraaminodiphenyl oxide, heat of solution and
polycondensation in relation to)

RN 31224-78-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 22 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:516319 HCAPLUS Full-text

DOCUMENT NUMBER: 95:116319

ORIGINAL REFERENCE NO.: 95:19543a,19546a

TITLE: Antifriction properties and wear resistance of plastics made of crosslinked poly(phenylquinoxalines)

AUTHOR(S): Korshak, V. V.; Gribova, I. A.; Krasnov, A. P.; Mamatsashvili, G. V.; Krongauz, E. S.; Travnikova, A. P.; Belomoina, N. M.

CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR

SOURCE: Trenie i Iznos (1981), 2(3), 540-4

CODEN: TRIZD6; ISSN: 0202-4977

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB The degree of crosslinking effect the thermofrictional properties and wear resistance of self-lubricating antifriction materials based on graphite [7782-42-5]-filled poly(phenylquinoxalines) containing reactive CO groups. 4,4'-Oxydi-o-phenylenediamine-1,1'-p-phenylenebis(2-phenyl-1,2-ethanedione)-3,3''-carbonyldibenzil copolymer (I) [66179-35-9] forming crosslinked structures and poly[(2-phenylquinoxaline-3,6-diyl)oxy(2-phenylquinoxaline-6,3-diyl)-p-phenylene] (II) [37196-91-1] as linear polymer were examined. The friction coefficient of I was higher than of II which did not contain crosslinked CO groups. The improvement in wear resistance and stability of the friction coefficient with increasing temperature depended on the amount of crosslinked I which in turn could be controlled by processing conditions. The formation of crosslinks due to friction decreased the wear resistance and stability of the friction coeff of I.

CC 36-5 (Plastics Manufacture and Processing)

ST friction polyphenylquinoxaline crosslinking; wear resistance polyphenylquinoxaline crosslinking

IT Crosslinking (degree of, of poly(phenylquinoxalines), antifriction and wear properties in relation to)

IT Antifriction materials (poly(phenylquinoxalines), wear resistance and friction coefficient of, effect of crosslinking degree on)

IT 25656-52-4 37196-91-1

RL: PRP (Properties)

(antifriction properties and wear resistance of)

IT 66179-35-9

RL: PRP (Properties)

(antifriction properties and wear resistance of, crosslinking degree in relation to)

IT 7782-42-5, uses and miscellaneous

RL: USES (Uses)

(poly(phenylquinoxalines) filled with, antifriction properties and wear of)

IT 66179-35-9

RL: PRP (Properties)

(antifriction properties and wear resistance of, crosslinking degree in relation to)

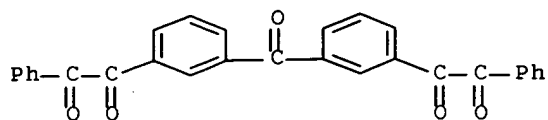
RN 66179-35-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] and 1,1'-(1,4-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX NAME)

CM 1

CRN 53302-48-0

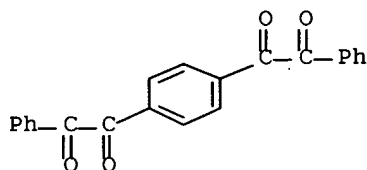
CMF C29 H18 O5



CM 2

CRN 3363-97-1

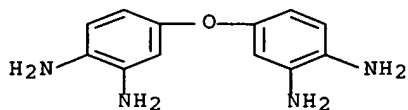
CMF C22 H14 O4



CM 3

CRN 2676-59-7

CMF C12 H14 N4 O



L63 ANSWER 23 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1981:31469 HCAPLUS Full-text

DOCUMENT NUMBER: 94:31469

ORIGINAL REFERENCE NO.: 94:5197a,5200a

TITLE: Properties of poly(phenylquinoxaline) crosslinked copolymers

AUTHOR(S): Korshak, V. V.; Gribova, I. A.; Krongauz, E. S.; Krasnov, A. P.; Travnikova, A. P.; Mamatsashvili, G. V.; Belomoina, N. M.

CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1980), 22(8), 627-30

CODEN: VYSBAI; ISSN: 0507-5483

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB The crosslinking degree and thermomech. properties of poly(phenylquinoxalines) based on 3,3',4,4'-tetraaminodiphenyl ether and bis- α -diketones can be controlled by changes in the CO group content in the polymer mol. and processing temperature 1,4-Bis(phenylglyoxylyl)benzene-3,3'-bis(phenylglyoxylyl)benzophenone-3,3',4,4'-tetraaminodiphenyl ether copolymer (I) [66179-35-9] with various ratios of the 2 bis- α -diketones at a stoichiometric tetraamine-tetraketone ratio was examined The softening temperature of I decreased on increasing the benzophenone-based tetraketone content of the copolymer. An increase in the CO group content of I to 40-5% decreased the impact resistance and increased the rigidity. The crosslink d. increased with increasing CO group content of I and with increasing processing temperature

CC 36-6 (Plastics Manufacture and Processing)

ST deformation polyphenylquinoxaline crosslinking; impact strength
polyphenylquinoxaline crosslinking; thermomech property
polyphenylquinoxaline crosslinking

IT Crosslinking
(of poly(phenylquinoxalines), temperature effect on, thermomech. properties in relation to)

IT 91-19-0D, derivs., polymers 66179-35-9
RL: USES (Uses)
(thermomech. properties of crosslinked, structure and processing temperature in relation to)

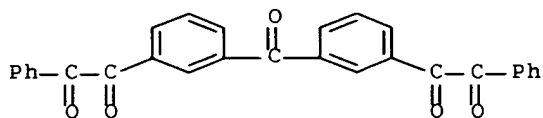
IT 66179-35-9
RL: USES (Uses)
(thermomech. properties of crosslinked, structure and processing temperature in relation to)

RN 66179-35-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] and 1,1'-(1,4-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX NAME)

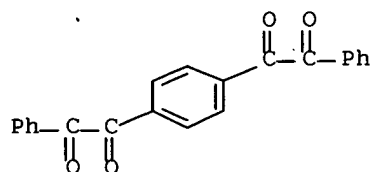
CM 1

CRN 53302-48-0
CMF C29 H18 O5



CM 2

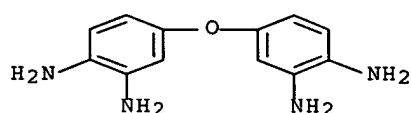
CRN 3363-97-1
CMF C22 H14 O4



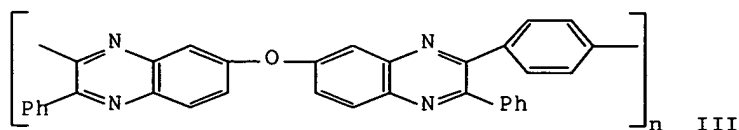
CM 3

CRN 2676-59-7

CMF C12 H14 N4 O



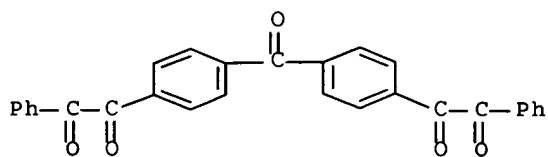
L63 ANSWER 24 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
 ACCESSION NUMBER: 1980:640009 HCAPLUS Full-text
 DOCUMENT NUMBER: 93:240009
 ORIGINAL REFERENCE NO.: 93:38477a,38480a
 TITLE: Kinetics and mechanism of poly(phenylquinoxalines) formation
 AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Travnikova, A. P.
 CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR
 SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1980), 22(7), 1450-7
 CODEN: VYSAAF; ISSN: 0507-5475
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 GI



AB The mechanism of the formation of poly(phenylquinoxalines) was established by studying polymerization kinetics of 3,3',4,4'-tetraaminodiphenyl ether (I) [2676-59-7] with (PhCOCO)2C6H4-p (II) [3363-97-1] in CHCl3 in the presence of various quantities of H donors (BzOH [65-85-0], AcOH [64-19-7], MeOH [67-56-1], and m-cresol [108-39-4]) and the mol. weight and structure of the resulting polymer III [25656-52-4]. H donors reacted with the amino groups of I and the keto groups of II, converting them into conjugate acids and strong electrophilic cations, resp. The latter reacted with neutral I via

Kathleen Fuller EIC1700 571-272-2505

- coordination with unshared electron pairs on N. A 1:2 I-m-cresol complex [75763-57-4] (m.p. 105-7°) was isolated. The suggested polymerization mechanism accounted for the linearity of III and the absence of defects in III chains, as well as the absence of chelation and impossibility of conducting the polymerization stepwise.
- CC 35-4 (Synthetic High Polymers)
- ST polyphenylquinoxaline formation mechanism; quinoxaline polymer formation mechanism; phenylglyoxyloylbenzene tetraaminodiphenyl ether polymn kinetics; aminodiphenyl ether bisphenylglyoxyloylbenzene polymn kinetics; kinetics polymn bisphenylglyoxyloylbenzene tetraaminodiphenyl ether; amine glyoxal deriv polymn
- IT Bond order
Electron configuration
(of aromatic diketones, HMO calcn. of)
- IT Kinetics of polymerization
(of bis(phenylglyoxyloyl)benzene with tetraaminodiphenyl ether, in presence of hydrogen donors)
- IT Ring closure and formation
(polymerization and, of bis(phenylglyoxyloyl)benzene with tetraaminodiphenyl ether)
- IT Polymerization
(cyclo-, of bis(phenylglyoxyloyl)benzene with tetraaminodiphenyl ether, in presence of hydrogen donors, mechanism of)
- IT Ketones, properties
(di-, aromatic, electron densities and bond orders of, HMO calcn. of)
- IT 64-19-7, uses and miscellaneous 65-85-0, uses and miscellaneous
67-56-1, uses and miscellaneous 108-39-4, uses and miscellaneous
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymerization of bis(phenylglyoxyloyl)benzene with tetraaminodiphenyl ether, kinetics and mechanism in presence of)
- IT 31224-78-9 47709-64-8 62081-29-2 63145-66-4
RL: USES (Uses)
(electron densities and bond orders of, HMO calcn. of)
- IT 25656-52-4 37196-91-1
RL: USES (Uses)
(mol. weight and structure of)
- IT 2676-59-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with bis(phenylglyoxyloyl)benzene, in presence of hydrogen donors, kinetics and mechanism of)
- IT 3363-97-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymerization of, with tetraaminodiphenyl ether, in presence of hydrogen donors, kinetics and mechanism of)
- IT 75763-57-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
- IT 31224-78-9
RL: USES (Uses)
(electron densities and bond orders of, HMO calcn. of)
- RN 31224-78-9 HCAPLUS
- CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 25 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:445408 HCAPLUS Full-text

DOCUMENT NUMBER: 93:45408

ORIGINAL REFERENCE NO.: 93:7483a,7486a

TITLE: Additivity of the C = O band integral intensities in the infrared spectra of aromatic bis-α-diketones and polyketones

AUTHOR(S): Valtere, S.; Neilands, O.

CORPORATE SOURCE: Rzh. Politekh. Inst., Riga, USSR

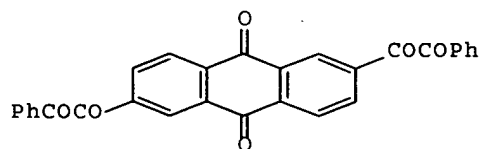
SOURCE: Latvijas PSR Zinatnu Akademijas Vestis, Kimijas Serija (1980), (1), 85-8

CODEN: LZAKAM; ISSN: 0002-3248

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI



AB Carbonyl frequencies and integrated intensities (A) were determined for 18 mols. containing 2-6 C:O groups, e.g., p-(PhCOCO)C₆H₄, benzil and I. Splitting of the C:O absorption band resulted from different polarities of the adjacent C:O groups. The number of C:O groups in this type of mol. can be calculated as 0.5A.

CC 22-2 (Physical Organic Chemistry)

ST IR ketone additive intensity; polyketone IR additivity

IT Carbonyl group

(determination of number of, in aromatic polyketones, from IR intensity)

IT Infrared spectra

(of di- and polyketones, additivity of intensity in)

IT Ketones, properties

RL: PRP (Properties)

(poly-, IR spectra of, additivity of intensity in)

IT 134-81-6 3363-87-9 3363-97-1 21454-19-3 29673-72-1

31224-78-9 47732-51-4 51930-25-7 53302-48-0

54520-09-1 62913-22-8 74291-11-5 74291-12-6 74291-13-7

74291-14-8 74291-15-9 74291-16-0 74291-17-1

RL: PRP (Properties)

(IR frequency and intensity of carbonyl group in)

IT 31224-78-9 53302-48-0

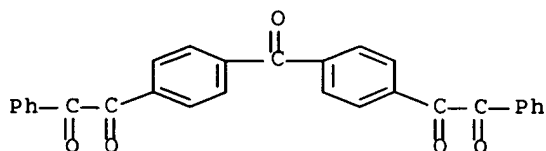
RL: PRP (Properties)

Kathleen Fuller EIC1700 571-272-2505

(IR frequency and intensity of carbonyl group in)

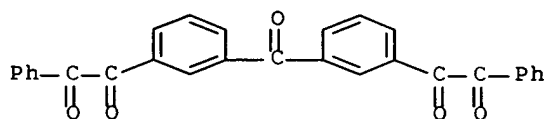
RN 31224-78-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



RN 53302-48-0 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl- (9CI) (CA INDEX NAME)



L63 ANSWER 26 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:42703 HCAPLUS Full-text

DOCUMENT NUMBER: 92:42703

ORIGINAL REFERENCE NO.: 92:7131a,7134a

TITLE: Effect of thermodynamic chain flexibility of poly(phenylquinoxalines) on their thermal frictional properties

AUTHOR(S): Korshak, V. V.; Gribova, I. A.; Krasnov, A. P.; Mamatsashvili, G. V.; Pavlova, S. A.; Timofeeva, G. I.; Ronova, I. A.; Kroyan, S. A.; Krongauz, E. S.; et al.

CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR

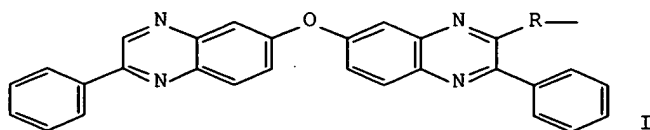
SOURCE: Vysokomolekulyarnye Soedineniya, Seriya A (1979), 21(10), 2214-20

CODEN: VYSAAF; ISSN: 0507-5475

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI



AB The decrease of the Kuhn segment (A) length in poly(phenylquinoxalines) [I, R is p-phenylene, p,p'-biphenylene, p,p'-diphenylene oxide, p,p'-diphenylene ketone, m,m'-diphenylene ketone, or N,N'-bis(p-phenylene)-1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-diimido] not only increased their chain flexibility, but also decreased their softening temperature (Ts) and friction

coefficient (μ) against steel. The filling of I with <60% graphite reduced μ to ≤ 0.33 . Thus 3,3',4,4'-tetraaminodiphenyl oxide-4,4'-bis(phenyldicarbonyl)diphenyl ether copolymer (I, R = p,p'-diphenylene oxide) [27322-90-3] with or without graphite had μ 0.18 or 0.63 resp., its Ts was 210-20°, and its A was 30 Å. For comparison 3,3',4,4'-tetraaminodiphenyl oxide-N,N'-bis(4-phenyldicarbonylphenyl)-1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-diimide copolymer [I, R is N,N'-bis(p-phenylene)-1,4,5,8-naphthalenetetracarboxylic 1,8:4,5-diimide] [65684-19-7] with or without graphite had μ 0.33 or 0.82 resp., Ts = 370-80°, and A = 71 Å.

CC 36-5 (Plastics Manufacture and Processing)

ST polyphenylquinoxaline chain flexibility; friction coeff structure
polyphenylquinoxaline; softening temp structure polyphenylquinoxaline

IT Friction

(coefficient of, of poly(phenylquinoxaline), chain flexibility in relation to)

IT Chains, chemical

(of poly(phenylquinoxalines), flexibility of, friction coefficient and softening temperature in relation to)

IT 25656-52-4 27322-90-3 30527-17-4 37196-91-1 37196-95-5
39411-10-4 53302-51-5 53414-91-8 65506-65-2 65684-19-7
72383-21-2 72412-83-0

RL: USES (Uses)

(chain flexibility of, friction coefficient and softening temperature in relation to)

IT 53302-51-5 72383-21-2

RL: USES (Uses)

(chain flexibility of, friction coefficient and softening temperature in relation to)

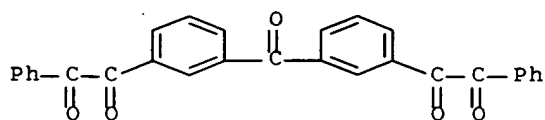
RN 53302-51-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 53302-48-0

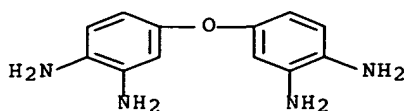
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



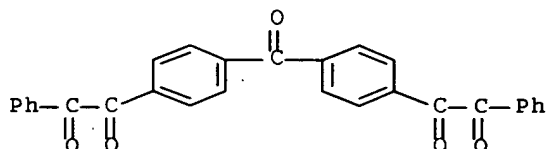
RN 72383-21-2 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 31224-78-9

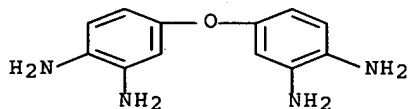
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



L63 ANSWER 27 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:169725 HCAPLUS Full-text

DOCUMENT NUMBER: 88:169725

ORIGINAL REFERENCE NO.: 88:26739a,26742a

TITLE: Synthesis and reactions of bisethynyl compounds

AUTHOR(S): Kofman, N. M.; Krongauz, E. S.; Berlin, A. M.;

Novikov, A. N.; Merkushev, E. B.

CORPORATE SOURCE: USSR

SOURCE: Tezisy Dokl. - Vses. Konf. Khim. Atsetilena, 5th (1975), 90-1. "Metsniereba": Tiflis, USSR.

CODEN: 37NAAL

DOCUMENT TYPE: Conference

LANGUAGE: Russian

AB ZI2 [Z = p-C6H4, p-C6H4C6H4-p, (p-C6H4)2O, (m- and p-C6H4)2CO, 3,6-dibenzofurandiyl, 2,7-fluorenediyl, 2,7-phenanthrenediyl] reacted with PhC.tplbond.CCu to give the corresponding (PhC.tplbond.C)2Z, which were oxidized with KMnO4 to give 50-93% (PhCOCO)2Z.

CC 25-16 (Noncondensed Aromatic Compounds)

ST ketone bisdi arom; alkyne di arom prepn oxidn; oxidn arom dialkyne

IT Ketones, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)

(bis- α -di-, preparation of, by permanganate oxidation of aromatic dialkynes)

IT Ethynylation

Kathleen Fuller EIC1700 571-272-2505

(phenyl-, of diiodoarom. compds.)

IT 624-38-4 3001-15-8 5630-56-8 5943-11-3 16218-30-7 25186-99-6
28896-49-3 62325-31-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(ethynylation of, with copper phenylacetylide)

IT 13146-23-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(phenylethynylation of diiodoarom. compds. with)

IT 1849-27-0P 49674-70-6P 53304-20-4P 53304-21-5P 53304-22-6P
55718-45-1P 59745-29-8P 66397-23-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and oxidation of)

IT 3363-97-1P 21454-19-3P 31224-78-9P 47709-64-8P 50559-10-9P
53302-48-0P 60486-35-3P 66397-22-6P

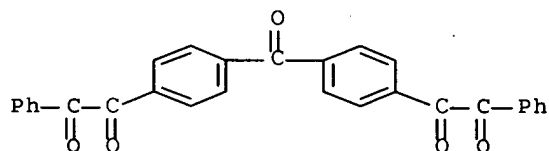
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 31224-78-9P 53302-48-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

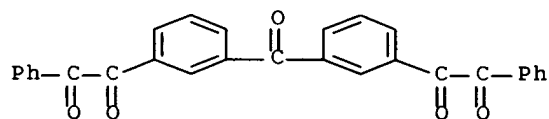
RN 31224-78-9 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



RN 53302-48-0 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl- (9CI) (CA INDEX NAME)



L63 ANSWER 28 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1978:153443 HCAPLUS Full-text

DOCUMENT NUMBER: 88:153443

ORIGINAL REFERENCE NO.: 88:24193a,24196a

TITLE: Poly(phenylquinoxalines) of crosslinked structure

AUTHOR(S): Korshak, V. V.; Gribova, I. A.; Krongauz, E. S.;
Krasnov, A. P.; Mamatsashvili, G. V.; Komarova, L. I.

CORPORATE SOURCE: USSR

SOURCE: Plasticheskie Massy (1978), (2), 9-12

CODEN: PLMSAI; ISSN: 0554-2901

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Crosslinked poly(phenylquinoxalines) are prepared by reacting 1,4-bis(phenylglyoxalyl)benzene-4,4'-oxydi-O-phenylenediamine copolymer [25656-52-

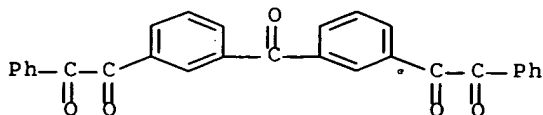
4] and 1,4-bis(phenylglyoxadyl)benzene-3,3'-bis(phenylglyoxalyl)benzophenone-4,4'-oxydi-o-phenylenediamine copolymer [66179-35-9] with terephthalaldehyde (I) [623-27-8] or benzidine [92-87-5]. This leads to an increase in the number of crosslinks without cyclization during the processing of the polymers at high temps. The crosslinking can occur by 3 mechanisms: reaction of terminal amino groups of the polymer with carbonyl groups of the crosslinking agent (in the case of I), interchain interaction of terminal amino groups of the polymer with carbonyl groups in the macro chain, or interaction of carbonyl groups in the chain with amine groups of the crosslinking agent (in the case of II). Crosslinked products having the desired properties can be obtained by varying the chemical structure of the copolymer and by proper selection of the crosslinking agent.

- CC 36-6 (Plastics Manufacture and Processing)
ST polyphenylquinoxalene physicomech property crosslinking;
terephthalaldehyde crosslinking polyquinoxalene structure; benzidine crosslinking polyquinoxalene structure; quinoxalene polymer crosslinking mechanism
IT Crosslinking agents
(dialdehyde and diamine compound, for poly(phenylquinoxalines),
physicomech. properties in relation to)
IT Crosslinking
(of poly(phenylquinoxalenes), with terephthalaldehyde and benzedene,
mechanism of)
IT 92-87-5
RL: USES (Uses)
(crosslinking of poly(phenylquinoxalene) with, mechanism of)
IT 623-27-8
RL: USES (Uses)
(crosslinking of poly(phenylquinoxalene) with, mechanism of)
IT 91-19-0D, derivs., polymers
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, with dialdehydes and diamines, mechanism of)
IT 25656-52-4 37196-91-1 66179-35-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, with terephthalaldehyde and benzidine, physicomech.
properties in relation to)
IT 66179-35-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking of, with terephthalaldehyde and benzidine, physicomech.
properties in relation to)
RN 66179-35-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with
4,4'-oxybis[1,2-benzenediamine] and 1,1'-(1,4-phenylene)bis[2-
phenylethanedione] (9CI) (CA INDEX NAME)

CM 1

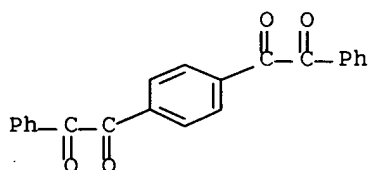
CRN 53302-48-0

CMF C29 H18 O5



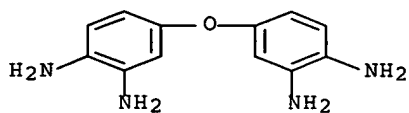
CM 2

CRN 3363-97-1
CMF C22 H14 O4

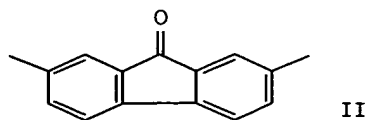
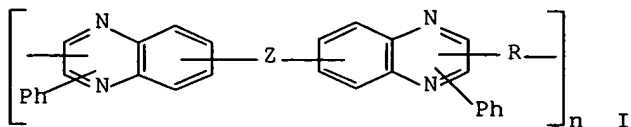


CM 3

CRN 2676-59-7
CMF C12 H14 N4 O



L63 ANSWER 29 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:424031 HCAPLUS Full-text
DOCUMENT NUMBER: 87:24031
ORIGINAL REFERENCE NO.: 87:3826h,3827a
TITLE: Properties of poly(phenylquinoxaline) films
AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Berlin, A. M.;
Kofman, N. M.; Gerashchenko, Z. V.; Sidorova, V. P.;
Blinov, V. F.
CORPORATE SOURCE: USSR
SOURCE: Plasticheskie Massy (1977), (4), 30-2
CODEN: PLMSAI; ISSN: 0554-2901
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI



AB The thermal stability of 7 poly(phenylquinoxalines) [I, Z = O, SO₂, or a single bond, R = p-C₆H₄, m-C₆H₄COC₆H₄-m, or fluorenone group (II)] is superior to other polyheteroarylenes and mech. and dielec. properties of I are comparable to those of polyimides. The tensile strength and elongation at break varied from 850 to 1280 kg/cm² and from 17 to 159%, resp., depending on the chemical structure of the polymer. The mech. properties of I were relatively high on 6-12 h heating in air at 450°. The mech. strength of I (Z = O, R = p-C₆H₄) decreased the fastest during heating in air at 250°. The change in weight of I began at 450°, and the region of intense degradation in air was >500°.

CC 36-5 (Plastics Manufacture and Processing)

ST polyphenylquinoxaline property thermal aging; heat resistance

polyphenylquinoxaline; mech property polyphenylquinoxaline aging

IT Polymer degradation

(oxidative thermal, of poly(phenylquinoxaline) films, polymer structure effect on)

IT 25656-52-4 29186-78-5 37196-91-1 53302-47-9 53302-49-1

53302-51-5 53302-52-6 53302-53-7 53414-90-7

53414-91-8 53414-92-9 53414-93-0 53414-95-2 62602-41-9

RL: PRP (Properties)

(oxidative thermal degradation of)

IT 53302-49-1 53302-51-5 53302-53-7

RL: PRP (Properties)

(oxidative thermal degradation of)

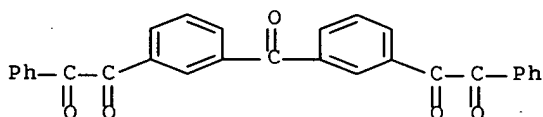
RN 53302-49-1 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 53302-48-0

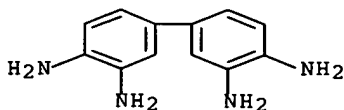
CMF C29 H18 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



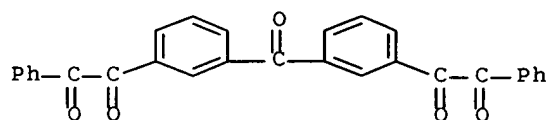
RN 53302-51-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 53302-48-0

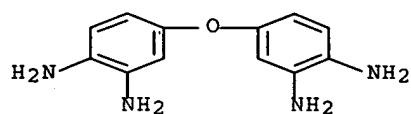
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



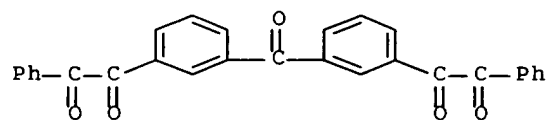
RN 53302-53-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 53302-48-0

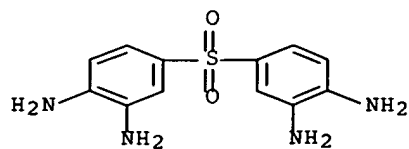
CMF C29 H18 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S



L63 ANSWER 30 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1975:17169 HCAPLUS Full-text

DOCUMENT NUMBER: 82:17169

ORIGINAL REFERENCE NO.: 82:2763a,2766a

TITLE: Poly(phenylquinoxalines) with increased heat resistance

AUTHOR(S): Korshak, V. V.; Krongauz, E. S.; Berlin, A. M.; Kofman, N. M.; Novikov, A. N.; Moskal'chuk, A. N.

CORPORATE SOURCE: Inst. Elementoorg. Soedin., Moscow, USSR

SOURCE: Vysokomolekulyarnye Soedineniya, Seriya B: Kratkie Soobshcheniya (1974), 16(7), 509-11
CODEN: VYSBAI; ISSN: 0507-5483

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB Thermal stability of poly(phenylquinoxalines) was increased by introducing into the bis(α -diketone) mols. a large number of phenylene or polycondensed cyclic groups and reactive groups, which were readily crosslinked. 2,7-Bis(phenylethynyl)fluorenone [53304-20-4], 4,4'-bis(phenylethynyl)biphenyl [53304-21-5] and 3,3'-bis(phenylethynyl)benzophenone [53304-22-6] were synthesized from Cu phenylacetylenide and corresponding diiodide, and used for preparation of 2,7-bis(phenylglyoxyloyl)fluorenone (I) [50559-10-9], 4,4'-bis(phenylglyoxyloyl)biphenyl (II) [47709-64-8] and 3,3'-bis(phenylglyoxyloyl)benzophenone (III) [53302-48-0], resp. I, II and III gave on reaction with aromatic tetraamine corresponding heat-resistant polymers, which formed films with ultimate strength and elongation at break 900-1100 kg/cm² and 10-12%, resp.

CC 35-3 (Synthetic High Polymers)

ST heat resistance polyphenylquinoxaline; biphenyl phenylglyoxyloyl polymer; benzophenone phenylglyoxyloyl polymer; fluorenone phenylglyoxyloyl polymer; quinoxaline deriv polymer

IT Heat-resistant materials

(quinoxaline derivative polymers in relation to)

IT 30527-15-2P 30527-17-4P 39411-10-4P 51243-54-0P 53302-47-9P

53302-49-1P 53302-50-4P 53302-51-5P 53302-52-6P

53302-53-7P 53414-90-7P 53414-91-8P 53414-92-9P

53414-93-0P 53414-94-1P 53414-95-2P 53414-96-3P 73935-40-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal stability of)

IT 47709-64-8P 50559-10-9P 53302-48-0P 53304-20-4P

53304-21-5P 53304-22-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

IT 53302-49-1P 53302-51-5P 53302-53-7P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and thermal stability of)

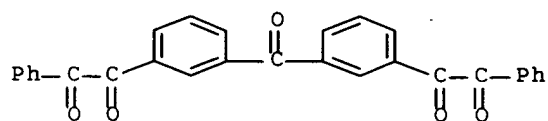
RN 53302-49-1 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with [1,1'-biphenyl]-3,3',4,4'-tetramine (9CI) (CA INDEX NAME)

CM 1

CRN 53302-48-0

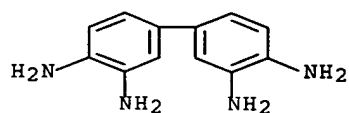
CMF C29 H18 O5



CM 2

CRN 91-95-2

CMF C12 H14 N4



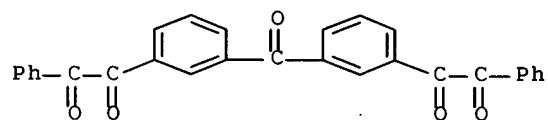
RN 53302-51-5 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-oxybis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 53302-48-0

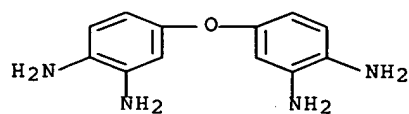
CMF C29 H18 O5



CM 2

CRN 2676-59-7

CMF C12 H14 N4 O



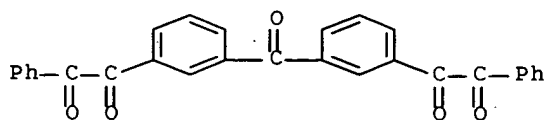
RN 53302-53-7 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl-, polymer with 4,4'-sulfonylbis[1,2-benzenediamine] (9CI) (CA INDEX NAME)

CM 1

CRN 53302-48-0

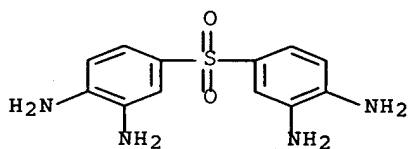
CMF C29 H18 O5



CM 2

CRN 13224-79-8

CMF C12 H14 N4 O2 S

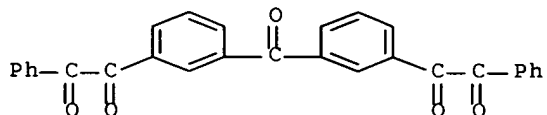


IT 53302-48-0P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 53302-48-0 HCAPLUS

CN Ethanedione, 1,1'-(carbonyldi-3,1-phenylene)bis[2-phenyl- (9CI) (CA INDEX NAME)



L63 ANSWER 31 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1974:404433 HCAPLUS Full-text

DOCUMENT NUMBER: 81:4433

ORIGINAL REFERENCE NO.: 81:731a,734a

TITLE: Poly-as-triazines

INVENTOR(S): Hergenrother, Paul M.

PATENT ASSIGNEE(S): Boeing Co.

SOURCE: U.S., 11 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3778412	A	19731211	US 1972-287407	19720908
US 3852243	A	19741203	US 1973-381913	19730723

PRIORITY APPLN. INFO.:

US 1969-846576 A2 19690731
US 1971-139884 A2 19710503
GB 1972-38828 A 19720821
US 1972-287407 A2 19720908

AB Poly-as-triazines, useful as heat-stable adhesives, laminating resins, and films, were prepared by treating a dihydrazidine with a bis-1,2-dicarbonyl compound. The polymers could also contain quinoxaline groups. Thus, a mixture of 20 ml hydrazine hydrate [7803-57-8] and 2.8 g 2,6-dicyanopyridine [2893-33-6] in 250 ml EtOH was heated 2 hr at 45-50.deg. to form 3 g 2,6-pyridinediyl dihydrazidine [22538-57-4], which was treated (1.93g) with 4.46g p,p'-carbonyldibenzil [31224-78-9] in m-cresol at room temperature for 0.5 hr to yield poly[3,3'-(2'',6''-pyridinediyl)-6,6'-(p,p'-carbonyldiphenylene)di(5-phenyl-as-triazine)] [51365-29-8].

IC C08G

INCL 260050000

CC 36-3 (Plastics Manufacture and Processing)

ST triazine polymer dihydrazidine dicarbonyl; polytriazine adhesive dihydrazidine dicarbonyl

IT Polymerization

(of dibenzils with dihydrazidines, polytriazines from)

IT Plastics

RL: USES (Uses)

(triazine derivative polymers)

IT Adhesive tapes

(triazine polymer adhesives for)

IT 2615-11-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)

IT	3363-97-1P	21454-19-3P	22538-57-4P	22538-58-5P	24447-21-0P
	28604-09-3P	29614-04-8P	29614-05-9P	29615-03-0P	29615-04-1P
	32763-08-9P	40404-43-1P	40404-44-2P	40404-45-3P	40404-46-4P
	40404-47-5P	40404-48-6P	43147-42-8P	51900-26-6P	51900-40-4P
	51900-52-8P	51900-53-9P	51900-63-1P	51900-64-2P	51900-65-3P
	51900-66-4P	51900-67-5P	51900-68-6P	51900-69-7P	51900-70-0P
	51913-94-1P	51930-24-6P	51930-25-7P	51938-90-0P	51986-97-1P
	51986-99-3P	52053-00-6P			

RL: PREP (Preparation)
(preparation of)

IT 21062-19-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with aluminum chloride)

IT 7803-57-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with dicyanopyridine)

IT 103-80-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diphenyl ether)

IT 623-26-7

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydrogen chloride)

IT 2893-33-6

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydrazine hydrate)

IT 101-84-8

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenylacetyl chloride)

IT 302-01-2, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(with p-phenylenebis(methanimine)dihydrochloride)

IT 29615-04-1P

RL: PREP (Preparation)
(preparation of)

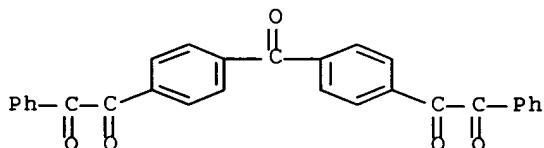
RN 29615-04-1 HCAPLUS

CN 2,6-Pyridinedicarboximidic acid, dihydrazide, polymer with
1,1'-(carbonyldi-4,1-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX
NAME)

CM 1

CRN 31224-78-9

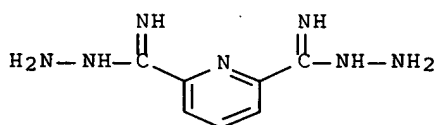
CMF C29 H18 O5



CM 2

CRN 22538-57-4

CMF C7 H11 N7



L63 ANSWER 32 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:13472 HCAPLUS Full-text

DOCUMENT NUMBER: 74:13472

ORIGINAL REFERENCE NO.: 74:2175a,2178a

TITLE: Poly(phenyl-as-triazines)

AUTHOR(S): Hergenrother, Paul M.; Kiyohara, D. E.

CORPORATE SOURCE: Polym. Sci. Lab., Boeing Sci. Res. Lab., Seattle, WA,
USA

SOURCE: Journal of Macromolecular Science, Chemistry (1971),
5(2), 365-82

CODEN: JMCHBD; ISSN: 0022-233X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB High mol. weight soluble poly(phenyl-as-triazines) were prepared at ambient temperature in m-cresol by the cyclopolycondensation of 2,6-pyridinediyl dihydrazidine (diamidrazone) with various aromatic dibenzil type reactants. Clear lemon yellow films, which exhibited good toughness and flexibility, were cast from solution and formed clear yellow to orange solns. in CHCl₃ or sym-tetrachloroethane at concns. as high as 30% solids. By TGA, poly(phenyl-as-triazines) exhibited a two-stage decomposition, commencing at 400°, in both air and N. The polymers exhibited excellent stability at 260° in air, but at 290° significant weight losses occurred.

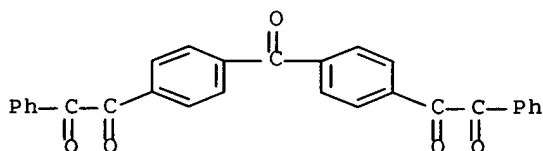
CC 35 (Synthetic High Polymers)

Kathleen Fuller EIC1700 571-272-2505

ST polyphenyl triazines; triazines polyphenyl; diamidrazones
cyclopolycondensation; cyclopolycondensation diamidrazones
IT Polymerization
(of benzil derivs. with pyridinedicarboximidic acid dihydrazide)
IT Dielectric loss
Glass temperature
(of triazine derivative polymers)
IT Heat-resistant materials
(triazine derivative polymers)
IT 28604-09-3 29187-70-0 29614-03-7 29614-04-8 29614-05-9
29615-03-0 29615-04-1 31497-61-7 31497-62-8 31497-63-9
31548-09-1 51900-70-0
RL: PRP (Properties)
(elec. and thermal properties of)
IT 29688-20-8P 29688-21-9P 29688-22-0P 29688-23-1P 29688-24-2P
29688-25-3P 31224-78-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 29615-04-1
RL: PRP (Properties)
(elec. and thermal properties of)
RN 29615-04-1 HCAPLUS
CN 2,6-Pyridinedicarboximidic acid, dihydrazide, polymer with
1,1'-(carbonyldi-4,1-phenylene)bis[2-phenylethanedione] (9CI) (CA INDEX
NAME)

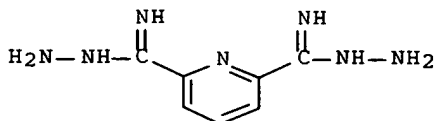
CM 1

CRN 31224-78-9
CMF C29 H18 O5

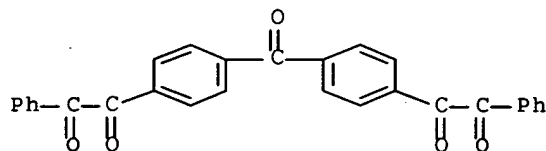


CM 2

CRN 22538-57-4
CMF C7 H11 N7



IT 31224-78-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 31224-78-9 HCAPLUS
CN Ethanedione, 1,1'-(carbonyldi-4,1-phenylene)bis[2-phenyl- (CA INDEX NAME)



L63 ANSWER 33 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:82685 HCAPLUS

DOCUMENT NUMBER: 60:82685

ORIGINAL REFERENCE NO.: 60:14441c

TITLE: Hexylbenzoic acid

INVENTOR(S): Belyaev, V. A.; Ustavshchikova, Z. F.; Vetrova, V. V.;
Preobrazhenskii, N. A.

SOURCE From: Byul. Izobret. i Tovarnykh Znakov 1964(1), 12..

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 159511		19631228	SU	19621206
PRIORITY APPLN. INFO.:			SU	19621206

AB Hexylbenzoic acid is obtained by alkylation of PhMe by lower polymers of propylene (I) in the presence of a catalyst to give hexyltoluene (II), and catalytic oxidation of II by air O. To increase the output of the product and simplify the process, a tetramer of I is alkylated in the presence of AlCl₃.

CC 35 (Noncondensed Aromatic Compounds)

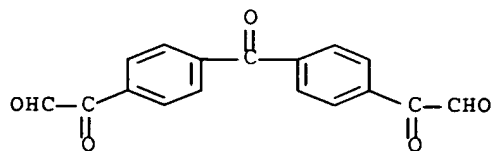
IT 60534-93-2P, Benzoic acid, hexyl- 98595-37-0P, Glyoxal,
(carbonyldi-p-phenylene)di-RL: PREP (Preparation)
(preparation of)

IT 98595-37-0P, Glyoxal, (carbonyldi-p-phenylene)di-

RL: PREP (Preparation)
(preparation of)

RN 98595-37-0 HCAPLUS

CN Glyoxal, (carbonyldi-p-phenylene)di- (7CI) (CA INDEX NAME)



L63 ANSWER 34 OF 34 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:82684 HCAPLUS Full-text

DOCUMENT NUMBER: 60:82684

ORIGINAL REFERENCE NO.: 60:14441a-c

TITLE: Glyoxyloylbenzophenone derivatives

INVENTOR(S): Edgerton, William H.

Kathleen Fuller EIC1700 571-272-2505

PATENT ASSIGNEE(S): Smith Kline & French Laboratories
 SOURCE: 2 pp.
 DOCUMENT TYPE: Patent
 LANGUAGE: Unavailable
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3128312		19640407	US 1960-38770	19600627
PRIORITY APPLN. INFO.:			US	19600627

GI For diagram(s), see printed CA Issue.

AB A mixture of 3.9 g. SeO₂, 1 ml. H₂O, and 15 ml. dioxane is heated on a steam bath while 5.6 g. 4-acetylbenzophenone in 60 ml. dioxane is added, and the mixture refluxed 6 hrs. to give 4-glyoxyloylbenzophenone (I) hydrate. The hydrate is heated in vacuo at 78° to yield I; MeOH solvate; BuOH solvate. A mixture of 10 g. 2,2'-diethylbenzophenone, 15 g. KMnO₄, 15 g. Mg(NO₃)₂, and 100 ml. H₂O is heated 30 hrs. at 80-5° to give 2,2'-diacetylbenzophenone (II). II is treated as above to give 2,2'-diglyoxyloylbenzophenone and its EtOH-solvate. Similarly prepared are 2-glyoxyloylbenzophenone hydrate and 4,4'-diglyoxyloylbenzophenone (III).

INCL 260591000

CC 35 (Noncondensed Aromatic Compounds)

IT 90607-62-8 93281-72-2 93428-40-1
 (Derived from data in the 7th Collective Formula Index (1962-1966))

IT 27133-94-4P, Toluene, ar-hexyl- 91646-98-9P, Piperidine,
 1-(N-methyl-N-nitrososulfanilyl)- 92496-87-2P, Benzophenone,
 4-(dihydroxyacetyl)- 93012-29-4P, Benzophenone, 4-(methoxyglycoloyl)-
 93012-29-4P, Glyoxal, (p-benzoylphenyl)-, 2-(methyl hemiacetal)
 93322-66-8P, Benzophenone, 4,4'-bis(dihydroxyacetyl)-
 95698-35-4P, Benzophenone, 4,4'-bis(ethoxyglycoloyl)-
 95698-35-4P, Glyoxal, (carbonyldi-p-phenylene)di-, bis[2-(ethyl
 hemiacetal)] 97192-86-4P, Glyoxal, (p-benzoylphenyl)-
 98595-37-0P, Glyoxal, (carbonyldi-p-phenylene)di-

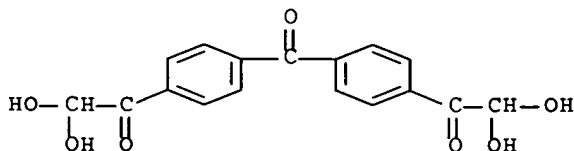
RL: PREP (Preparation)
 (preparation of)

IT 93322-66-8P, Benzophenone, 4,4'-bis(dihydroxyacetyl)-
 95698-35-4P, Benzophenone, 4,4'-bis(ethoxyglycoloyl)-
 98595-37-0P, Glyoxal, (carbonyldi-p-phenylene)di-

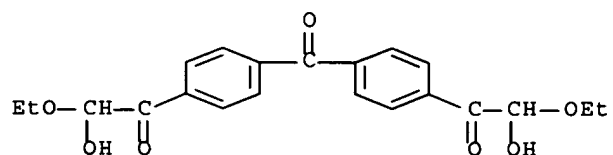
RL: PREP (Preparation)
 (preparation of)

RN 93322-66-8 HCAPLUS

CN Benzophenone, 4,4'-bis(dihydroxyacetyl)- (7CI) (CA INDEX NAME)

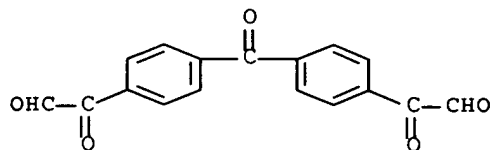


RN 95698-35-4 HCAPLUS
 CN Benzophenone, 4,4'-bis(ethoxyglycoloyl)- (7CI) (CA INDEX NAME)



RN 98595-37-0 HCAPLUS

CN Glyoxal, (carbonyldi-p-phenylene)di- (7CI) (CA INDEX NAME)



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